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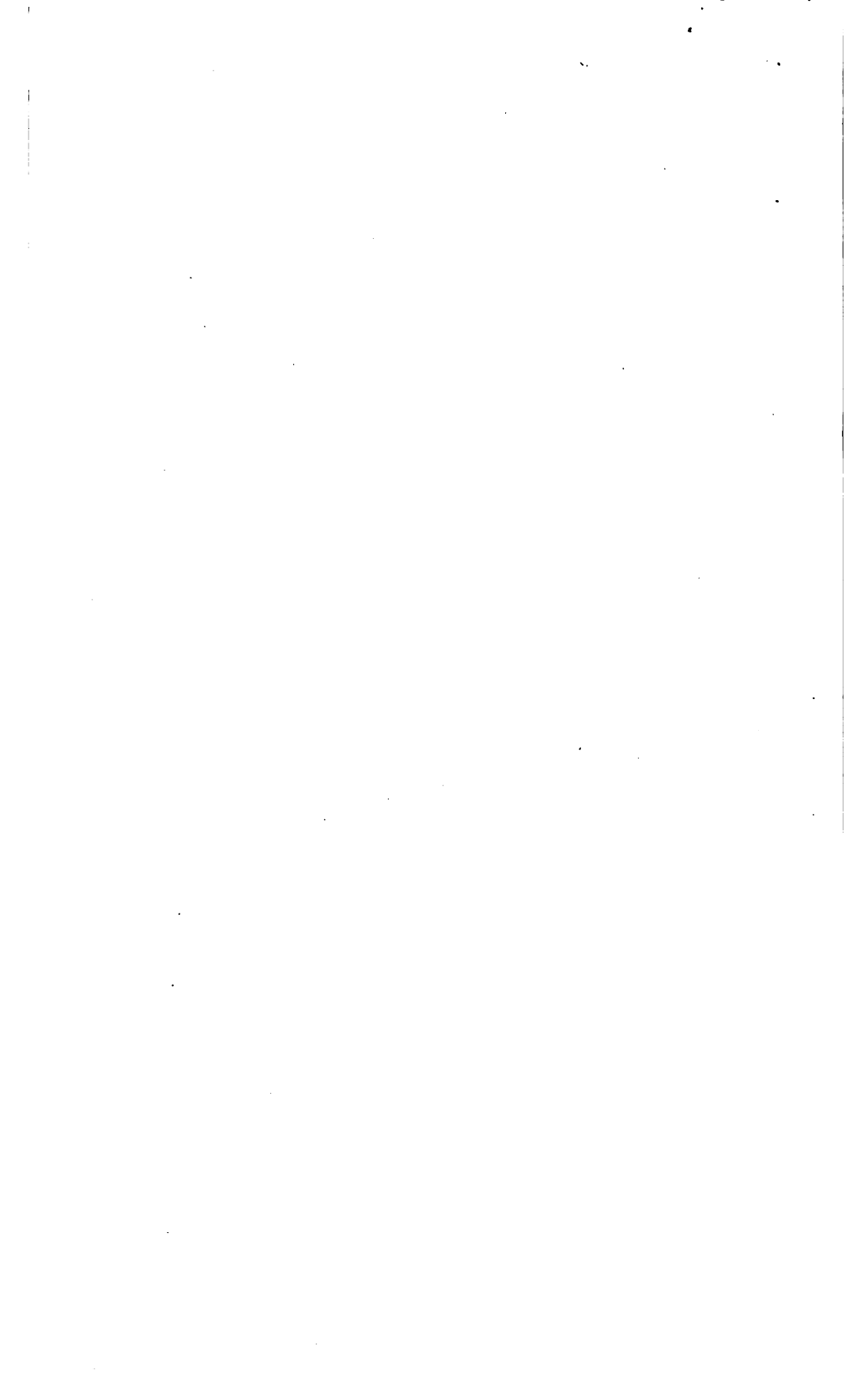


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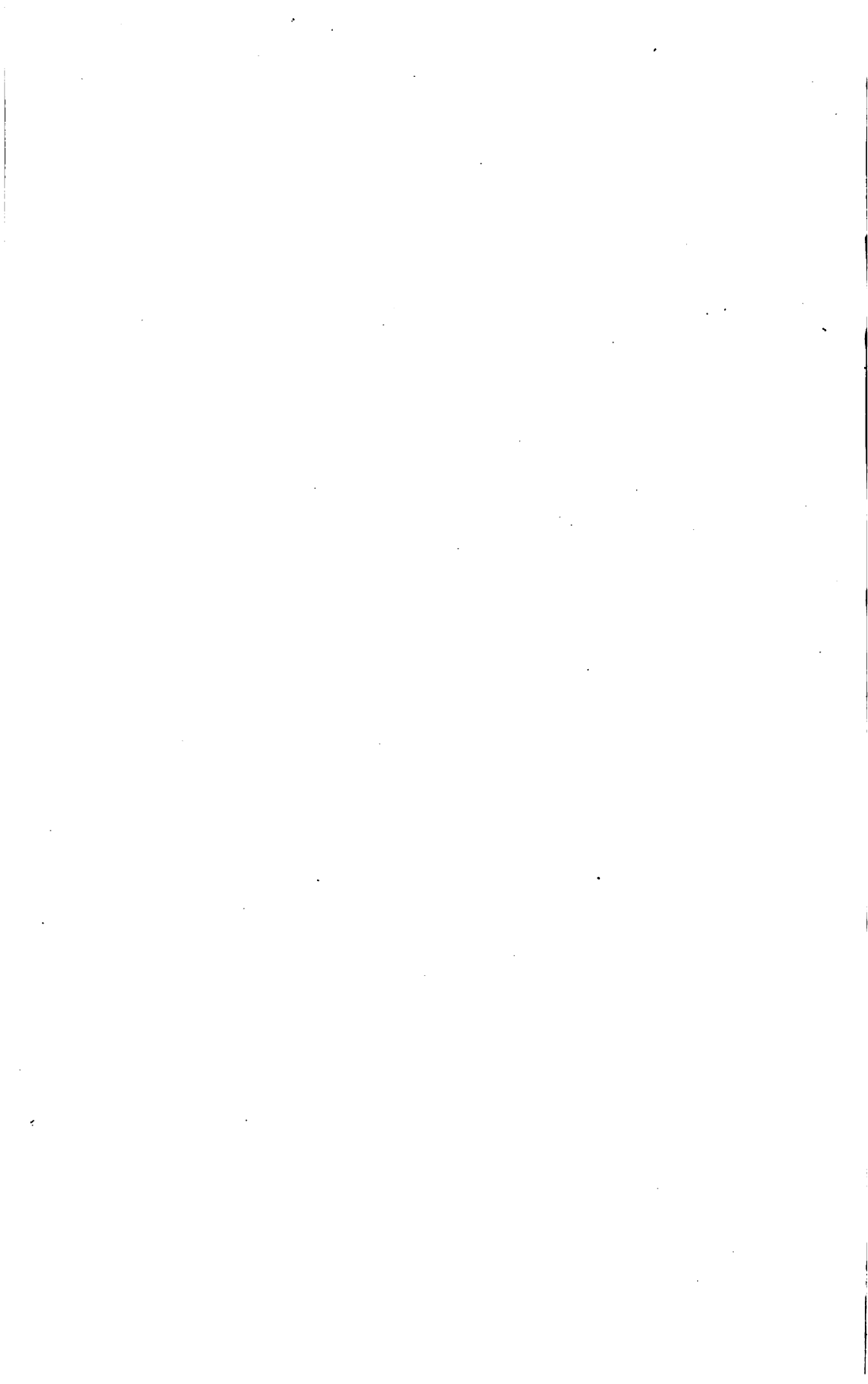




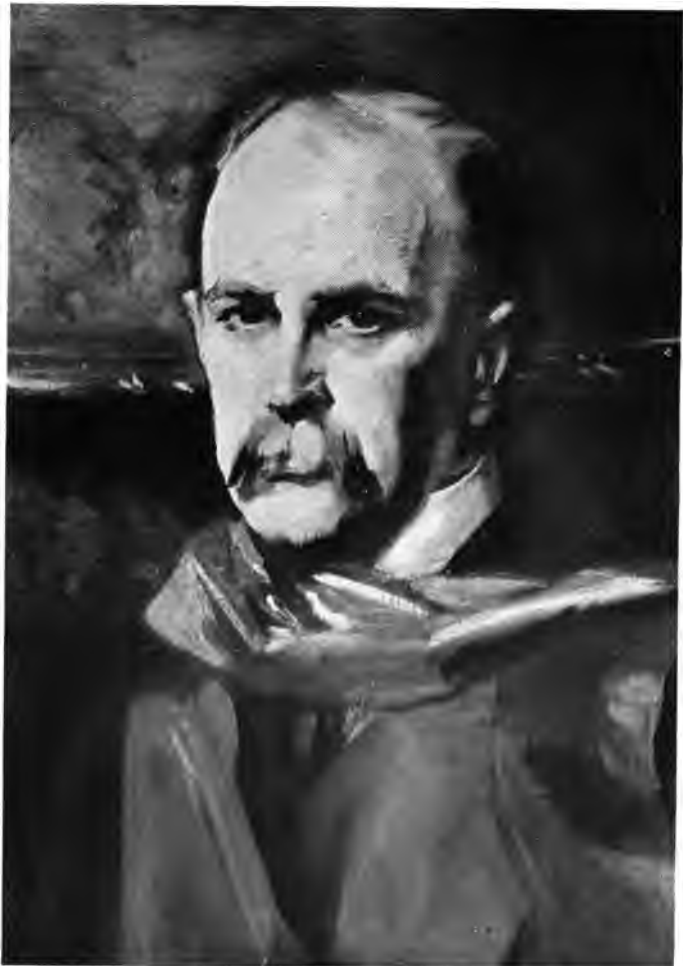
SIR WILLIAM OSLER, *BART.*



SIR WILLIAM OSLER, *BART.*







WILLIAM OSLER IN 1906.

Painted by Sargent.

SIR WILLIAM OSLER, *BART.*



Brief Tributes to His Personality, Influence and Public Service

Written by His Friends, Associates and Former Pupils,
In Honor of His Seventieth Birthday and First Published in the
Bulletin of The Johns Hopkins Hospital for July, 1919

THE JOHNS HOPKINS PRESS
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SIR WILLIAM OSLER, BART.

SOME MEMORIES OF THE DEVELOPMENT OF THE MEDICAL SCHOOL AND OF OSLER'S ADVENT

BY HENRY M. THOMAS

In thinking of the early days of The Johns Hopkins University and Hospital and the development of the medical school, my memories begin with the founder—Johns Hopkins. As a small boy between 10 and 12 I sat on the same bench with Johns Hopkins many Sunday mornings at the Friends' Meeting on Eutaw and Monument streets. I cannot remember that he ever spoke to me, and I remember him merely as a rather unkempt old gentleman. At that time he had announced his intentions for his double bequest, had, in 1867, incorporated the two institutions that were to bear his name, had appointed his trustees, and had bought the site for the hospital. Gallo-way Cheston, the president of the university board; Francis T. King, president of the hospital board; Francis White, James Carey Thomas, James Carey, and other trustees, were also constant attendants at the meeting, and it is pleasant now to think that in the congregation there were represented the founder, his trustees, and the rising generation which was to be benefited by the bequests.

Johns Hopkins believed that his wealth had been given to him for a purpose, and, to use a Friendly form of speech, that he would be "given to see" how to dispose of it. He had asked advice freely and much had been volunteered, and many of his advisers have claimed that they suggested the objects of his bequests and the forms which they should take, but I like to think that the wise instructions that he gave to his trustees were finally determined in meeting. The most important of

these for the development of the medical school was his direction in a letter to the hospital board, dated March 10, 1873, that "in all your arrangements in relation to this hospital you will bear constantly in mind that it is my wish and purpose that the institution shall ultimately form a part of the medical school of that university for which I have made ample provision by my will," so uniting forever the two bequests for the furtherance of medical education.

Johns Hopkins died on December 24, 1873, and in the early part of 1875 the trustees received the bequests and entered into active administration of the trusts. The first important decision of the university board was the wise and fortunate choice of Daniel C. Gilman as president of the university. He came to Baltimore May 1, 1875, and I can remember well the expectation and interest his coming aroused. He and his two daughters took apartments at the old Mt. Vernon Hotel, and for me a delightful friendship began.

Johns Hopkins chose his trustees well and left them untrammelled, and they in their turn gave President Gilman a free hand. They had already determined upon the establishment of a real university, which, as Gilman once said, was to supplement and not supplant existing institutions. In speaking of his first instructions which he received from the trustees, he says :

Often in private conversations and in official interviews, I was charged to hold up the highest standards, to think of nothing but the best which was possible under the limitations of the new establishment in a country where the idea of a university had not been generally understood.

In furtherance of these objects, President Gilman, in the summer of 1875, went abroad to visit the various universities and to consult with the leaders in education. Medical education was much in his mind, particularly the establishment of the laboratories and courses of instruction in the fundamental sciences which would be best fitted for the preliminary training of medical students. The field was almost entirely unbroken, and young men not yet 30 were selected for its cultivation—

Rowland in physics, Martin in biology, and Remsen in chemistry. Rowland, although not then appointed to the chair of physics, had accompanied Gilman to Europe to aid him in the selection of physical apparatus and books. While on this journey he found time to publish some articles in the *Philosophical Magazine* which Gilman, with characteristic promptness and prophetic vision, dated from The Johns Hopkins University—the first university publications.

Gilman was inaugurated on February 22, 1876, and the university received students and began instruction in the fall of that year. Professor Huxley, who had taken much interest in the proposed biological department, and who had recommended a favorite pupil of his—H. Newell Martin—as its director, was in America and was asked to give an opening lecture. In this lecture he spoke of the importance of biological studies, and particularly their relation to a properly organized medical course. My father, who had selected me as the son most available upon whom to experiment with this new method of medical education, saw to it that I attended Gilman's inauguration and Huxley's opening lecture. I have no recollection of the inaugural exercises, but I do remember hearing Huxley at the Academy of Music, principally, I think, on account of the storm of protest that followed. This protest was directed against the emphasis which the new university appeared to be giving to scientific research, especially in biology, even the study of which was thought at that time to be little less than impious, and was focused on the fact that Huxley, the great champion of science, had been asked to speak and that the lecture had not been ushered in by prayer. I believe that Mr. King and my father, both devoted religious workers, were responsible for this last circumstance. They certainly were astounded by the public reaction to this entirely consistent Quaker procedure.

Following the advice of Huxley and others the chemical-biological course was designed, and was recommended to those students who intended to take up the study of medicine; indeed, it was also called the preliminary medical course. It was

from the first the design of the university to establish the full medical course as soon as the hospital should be completed, and much thought was given to it. Martin and Remsen were recognized as forming the nucleus of the medical faculty.

At the opening of the fourth academic year, September, 1879, Professor Acland, then Regius Professor of Medicine at Oxford, was expected to give a lecture embodying his advice as to the proper co-ordination between the university and hospital in the organization of an advanced medical school. Unfortunately, on account of illness, he was unable to deliver the address. His views, however, have been preserved in a letter to the university and hospital authorities. How surprised he would have been had he been told that it was from this unborn medical school that his successor at Oxford was to be chosen!

In the early days the university was a small, compact body, made up, for the most part, of a young, active faculty, surrounded by a group of advanced workers, called fellows, and other post-graduate students, and a few rather over-powered undergraduates. Every encouragement and opportunity was given to research and to prompt publication of work accomplished. There was the closest sympathy among all the departments, and everyone knew and sympathized with the work of the others. It was naturally around Martin that the idea of the medical school germinated, and a more inspiring teacher it would be hard to imagine. Besides the regular biological courses, he gave lectures to medical students and practitioners of the city, and graduates in medicine entered his laboratory for special work.

The emphasis which the university had put upon men in contrast to buildings had permitted it to function at once, and to strike a remarkable pace in a very short time. With the hospital it was different; buildings were absolutely essential, and even though Johns Hopkins before his death had instructed his hospital trustees to begin work, time was necessarily consumed in the formation of plans, so that it was not

until June of 1877 that these were adopted and the excavations were begun.

The choice by the hospital board, in 1876, of Dr. John S. Billings, surgeon of the United States Army, and librarian of the surgeon-general's office, as their medical adviser was most fortunate, both as to the construction of the hospital buildings and as to the future of the medical school. Dr. Billings was much in Baltimore, and his encyclopædic knowledge of things medical was always at the service of the university as well as the hospital. He supplemented Gilman, and made with him a remarkable team. He was attached to the university academic staff as a lecturer on the history of medicine and municipal hygiene, although I do not think he gave many lectures until after the opening of the hospital.

Among the physicians who were attracted to Martin's laboratory was Wm. T. Councilman, who began work in 1878, just after having received his medical degree from the University of Maryland, and who, after his return from Europe in 1882, was made a fellow by courtesy, and was appointed associate in pathology in 1884. He busied himself about medical problems, gave some courses in special subjects, and lectured at the University of Maryland on pathology.

In 1879, Wm. H. Howell came from the Baltimore City College and entered the chemical-biological course and began a career which was to mean much to the university and medical school. He soon became a favorite pupil of Martin's, and after receiving his bachelor's degree, he was made in quick succession a fellow, an assistant, and then, in 1885, an associate in biology, having received his Ph. D. the year before. He resigned from the university in 1889, to return again as professor of physiology at the opening of the medical school.

I, in my capacity as experimental animal, was entered in the university the same year, and I can well remember Howell as the model student and also on the football field where he made up for his light weight by the accuracy and neatness of his tackling.

I look back upon my course at the university with the greatest pleasure. To have been under such men as Martin, Remsen, and Hastings in physics, to have read Shakespeare with Sydney Lanier, and to have heard the lectures from the noted men who were constantly coming to the university, could not help being stimulating to a youth even though over-occupied with many athletic pursuits. It had been hoped by those of us who took the preliminary medical course that at its completion the university would have started its medical school, but this was not to be. The buildings of the hospital were going up very slowly, and as there seemed no immediate prospect of the completion, we were forced to go elsewhere for our medical instruction.

While at the University of Maryland, I attended Dr. Councilman's first lectures on pathology, and also took a course with him in the biological laboratory in the histology of the nervous system. We had excellent professors at the University of Maryland, but it was the old lecture system, the only laboratories being the dissecting room and a newly established chemical laboratory. The students had practically no chance of getting close to patients, and I was graduated without ever having been instructed in physical diagnosis, and I received the prize in obstetrics without ever having seen a woman in labor! I took my medical degree in 1885. By this time the university was on the point of establishing its medical department. In the register for 1883-1884 it is announced that "The medical department of the university is soon to be organized. Its plan is receiving the constant attention of the trustees, and it will be made known before the completion of The Johns Hopkins Hospital. The nucleus of a medical faculty has been instituted as follows: The president of the university; J. S. Billings, M. D., lecturer on hygiene; W. H. Welch, M. D., professor of pathology; Ira Remsen, M. D., professor of chemistry; H. Newell Martin, M. D., professor of physiology."

In this somewhat casual way, the university announced the epoch-making facts that it had recognized pathology as a full university subject, and had appointed Dr. Welch to fill the

chair. The first was the natural development of the university idea in medicine, and the credit of the second has been claimed, in a friendly rivalry between the university and the hospital, both by Gilman and by Billings. However that may be, no other choice now seems conceivable.

Dr. Welch's appointment was the first one that had to do with practical medicine, and I remember my father's enthusiasm over it, for with it he felt that the university had made a wonderful beginning in medical teaching. What a wonderful beginning it was he was to learn later!

Welch gave his first course of lectures in Hopkins Hall in February and March, 1886, on microorganisms in disease. The hospital trustees allowed the university to furnish the autopsy house as a pathological laboratory, and so the first of the hospital buildings to be used was dedicated to the common purpose of the two trusts. Dr. Councilman had been appointed an associate in pathology, and courses of instruction were started on November 1, 1886. Halsted came from New York to work in the laboratory and Mall was appointed the first fellow. Other students gathered, most of them graduates in medicine, and when I returned from Europe at the end of the year I joined the group. Those early days have often been described, and it was, indeed, a rare privilege to have taken part in them. As the hospital was not yet opened, the institution had to depend upon other sources for its autopsy material. This was obtained for the most part from the City Hospital at Bay View. In the reorganization of this charity, The Johns Hopkins University had assumed the care of the insane, and my father, Dr. Councilman and I were appointed visiting physicians. Dr. Councilman was also pathologist.

At this time everything seemed to point to the early opening of the full medical school. The buildings of the hospital were practically finished, and there seemed to be no reason why they should not be shortly opened. The university authorities were completing their plans and Welch was on the spot. It was just at this time that financial calamity overtook the university. The Baltimore and Ohio common stock, of which the uni-

versity had nearly 15,000 shares, dropped its dividend from 10 to 8 per cent in 1886, to 4 per cent in 1887, and ceased paying the next year; the university was struggling for life and could not take on new obligations, so that the plans of the medical school were indefinitely suspended. The hospital income had not been affected as it was derived almost entirely from real estate, and there had been no inroads on the capital by the erection of the hospital buildings. It had, indeed, increased, and the hospital had now become the rich member of these organically joined twin bequests.

The time had come for the hospital to take up the work, but for it to begin to function, men had to be found to organize the various clinical departments. Above all, a physician-in-chief had to be appointed and everything depended upon the choice. The question was anxiously discussed by the two boards of trustees and their advisers, and the little band of students in the pathological laboratory discussed the question with critical, impotent anxiety. Now that adversity had fallen on the university, what hope was there that the unbroken series of phenomenal appointments could continue? Where could a clinician be found to match Gilman, Billings, Martin, Remsen, and Welch, and if found, would such a man come now that the opening of the medical school in the near future was less than probable? We doubted, but we did not at that time know Dr. Osler and how impossible it would have been for him to have refused to add his strength to the endeavor to bring to fruition the long-nourished idea of a real university medical school. He has given an account of his reaction to the proposal. In speaking of Billings' visit to him in Philadelphia, he says: "Without sitting down, he asked me abruptly, 'Will you take charge of the medical department of The Johns Hopkins Hospital?' Without a moment's hesitation I answered, 'Yes.' 'See Welch about the details; we are to open very soon. I am very busy to-day; good morning,' and he was off, having been in my room not more than a couple of minutes."

The appointment was made in the fall of 1888, and he was to begin his service at the opening of the hospital, which was announced for May, 1889. It soon became evident that although it was easy to announce the opening day, it was quite another thing to get the complicated mechanism of the hospital organized and ready to function. In this emergency the hospital appealed to the university and induced Gilman to assume the task. The work was colossal and the time was short, and it speaks volumes for the estimation in which Gilman's organizing ability was held that no one doubted the result.

The formal opening occurred on May 7, 1889, and Osler, with his satellites, took his place as our guiding star. He brought Lafleur from Montreal, Scott and Toulmin from Philadelphia, and those of us who were able to do so joined the ever-increasing group.

The hospital annexed Welch with his already organized department of pathology. Halsted was given charge of the surgical department and the organization of the dispensary, Kelly was brought in June from Philadelphia to take charge of gynæcology, and in August Dr. Hurd, as superintendent took over from President Gilman the direction of the hospital.

The opening of the hospital was for the trustees, the faculty, and above all for us expectant, impatient medical novices, the beginning of the fulfillment of long-suppressed desires. For me the reality far surpassed the fantasy of my dreams. In the association that was to follow, which for my part was as close as I could make it, Osler as a physician, teacher and friend, constantly raised my preconceived ideal. Memories of this time overwhelm me.

The dispensary was opened first and patients were admitted to the wards from it, and Osler, surrounded by a few of us, himself wrote the first dispensary history. Until the wards were full he was constantly in the dispensary, organizing the various subdepartments of medicine, for it was an unique feature of the system that the services were continuous, and that the various special departments were grouped under either medicine or surgery. As it was in the early days of the

university, so it was with the hospital at the beginning. Workers formed a closely united body. All that happened was of interest to each of us. On the medical side Osler radiated by his example and personality constant stimuli to careful clinical work and investigation along all sorts of lines. He pointed out problems, encouraged everyone in what he desired to do, and was more than liberal in his commendation of work done. His absolute generosity threw open his whole clinical material to the use of anyone who had a problem. He urged and assisted in the publication of the results, and saw to it that the young men got the whole credit of the work when often it should have gone to himself. Is it to be wondered at that such a chief has such devoted followers?

The Medical Society, the Journal Club, the Historical Club, and other associations, were organized in quick succession. Post-graduate courses were given, but the medical school of the university seemed as far from beginning as ever. The university trustees were not unmindful of the question, and some of them in spite of the depleted income, were constantly urging the establishment of the school. I have found among my father's papers the notes of an earnest appeal on the subject which he appears to have made to the Board of Trustees in May, 1890. Certain women, several of whom were daughters of trustees, who had from the first unsuccessfully sought admission for themselves and other women to the university, and who had been told that it was planned to admit women to the medical school when it should be established, collected money and offered \$100,000 to the trustees on condition that it should be used to help the establishment of a medical school to which women should be admitted on the same terms as men. On October 29, 1890, the trustees made a minute accepting the gift, with the proviso, however, that the university should not establish its medical school until an endowment of \$500,000 had been secured, and that women who desired to enter should receive their preliminary education somewhere else. Miss Mary E. Garrett, who had contributed most of the original Women's Medical Fund, completed the endowment on Decem-

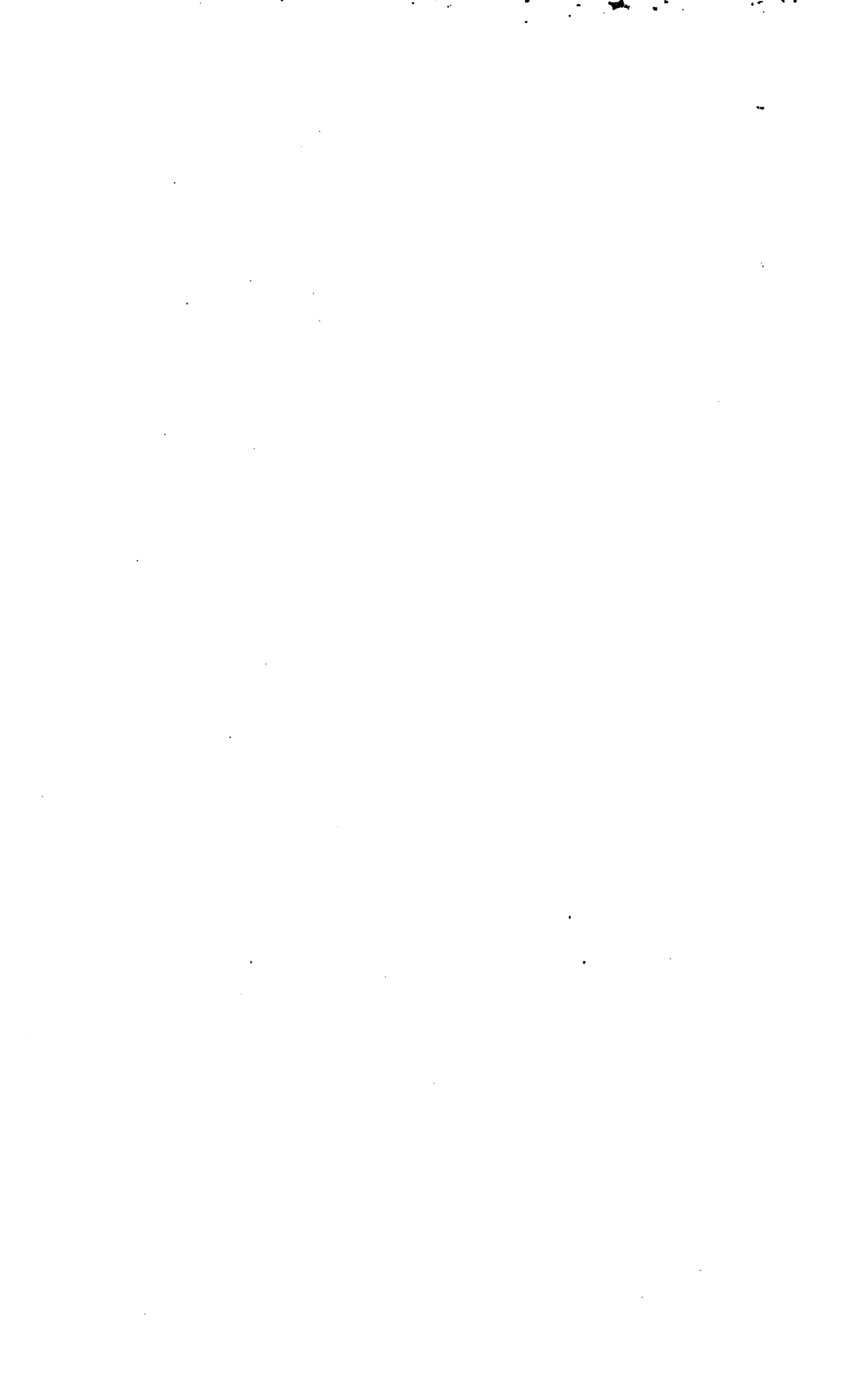
ber 22, 1892, by a gift of \$306,977. Leading up to this gift there was a protracted three-sided discussion between Miss Garrett and her friends, the Medical Faculty and the Board of Trustees. The outlook for an agreement was often gloomy, and only one who was in a position to know, as I was, something of the ideas of all three parties to the negotiation, can realize on how many occasions the scheme came close to being abandoned. In this discussion, together with Welch and Martin, Osler was deeply concerned. He had become very restive under the delay of the opening of the medical school, complained to me on one occasion of what he called the dry bones of post-graduate teaching, and even intimated that unless something were done he might be forced to go where there were some real medical students.

The decision as insisted upon by Miss Garrett, to fix permanently by the terms of the gift the conditions for admission to the medical school at an unprecedented standard, required no little courage, and although the results have abundantly justified it, it was then thought that it would greatly limit the number of students who would apply for admission. The first class of 17, including three women, entered in the fall of 1893. When, in the third year, they began to work in the hospital, first in the dispensary and then in the wards, Osler's genius as a medical teacher became more and more evident. He saw to it that the students came into the closest contact with the patients in the dispensary, and he organized the hospital wards so that the fourth-year students took an essential part in the management of the cases. Although this last had been the intention since the inception of the hospital, and the main building had been designed to house 20 senior students, its practical application met with opposition and presented difficulties, and it was Osler's insistence that threw open the wards to the students, a fact, the thought of which, I think, always gives him pleasure.

He did, indeed, put the students into the wards, but he did not leave them there. He stayed with them, and if ever medical students got clinical instruction on a university basis,

they did. It is not given to me to speak of Osler as a teacher, for my chapter ends with the beginning of the medical school. For me, and for others similarly situated, who had been reared in the expectation of the new order in medical education, the coming of Osler ushered in the complete realization of long-deferred hopes. He set for us a difficult goal, and helped and cheered us on the way by his wise precepts, his kindly, friendly commendation, his vigorous leadership, and more than all, by simply being himself.

It is no fault of his that the finished product is no better, but what good there is in me as a teacher and a physician I owe to him, and on this, his birthday, I lay it at his feet in grateful acknowledgment.





1902.

OSLER AS CHIEF OF A MEDICAL CLINIC

BY LEWELLYS F. BARKER

Internal medicine, like other branches of science, though making at all times some progress, is subject in its advance to fits and starts, the result of unusual concatenations of events. The opening of the medical clinic at The Johns Hopkins Hospital in 1889 was an opportunity for helping on the science and art of medicine that might amount to either much or little, depending upon its seizure. The time corresponded to the flood-tide of natural science. Biology, physics and chemistry had participated in the great rise. Medicine, always quick to apply to its own service the results of investigations in the fundamental sciences, had responded by establishing a whole series of special medical sciences (anatomy, histology, embryology, physiology, physiological chemistry, pharmacology, pathological anatomy and physiology, bacteriology), to be studied and taught by men who gave up their lives exclusively to their promotion; these sciences were to serve as a foundation upon which a great superstructure of clinical science and art might be built. The place to be filled, the professorship of medicine in The Johns Hopkins University, which carried with it the appointment as physician-in-chief to The Johns Hopkins Hospital, was in several ways unique, at least as far as medicine in America was concerned. For, in the first place, according to the will of Johns Hopkins, the well-endowed hospital was designed to be an integral part of the medical school of an endowed university, and funds were provided for salaries for the leaders of the clinics as well as for the chiefs of other university departments, one of the circumstances that, combined with others, led to the abandonment of the hitherto-prevailing "proprietary medical schools" and to their replacement by medical schools organized as parts of great universities. In the second place, The Johns Hopkins University, through the

action of its trustees, and of its first president, Daniel C. Gilman, had been organized, in all its departments, in the interests of original research as well as of competent instruction; with distinguished investigators in the arts department and with men like Martin and Brooks in biology and physiology, Rowland in physics, Remsen in chemistry, and Welch in pathology, it was clear that capacity for personal research and the power to stimulate others to engage in fruitful researches were regarded, along with ability to teach and to organize, as essential requirements of the occupants of chairs in the university. And, in the third place, the trustees of the hospital, in consultation with the president of the university, the professor of pathology, and Dr. John S. Billings of the surgeon-general's library, had planned and built (out of income from the endowment), a hospital that, at the time of its completion, offered better facilities for the organization and conduct of clinical work than had heretofore been available in the United States. The ideals cherished in the university, the material equipment at the hospital, the opportunities and possible rewards open to the clinical leaders who might be appointed, combined to provide unparalleled places for occupancy. If, then, for these positions clinical men could be found, who, by native ability and experience, would measure up to the extraordinary time and the unusual opportunities, success in the highest sense for the new institution would seem to be ensured. The chair of medicine is, by common consent, the most important clinical chair in a university medical school. For this professorship the university faculty recommended, and the trustees confirmed, the appointment of Dr. William Osler, then engaged in teaching medicine in the University of Pennsylvania and in consultation practice in Philadelphia. A member of a distinguished Canadian family, trained in medicine first in the University of Toronto and in McGill University in Montreal, and, later, as a graduate student, in the clinics and laboratories of England, France and Germany, interested and occupied in research and teaching in histology, physiology, pathology and parasitology as well as in

internal medicine, and possessing personal qualities that even in youth marked him as a potential leader of men, the appointee entered upon his work with an enthusiasm that was stimulating, began to organize his department, selecting a group of young men as assistants, and soon set an example in practice, teaching and investigation that was contagious. The office and the man were suited to one another. The time, the place, and the person formed a happy conjuncture that was to mean much for internal medicine in America and in the world.

Of the set of brief contributions here published concerning Professor Osler's work in Baltimore, those dealing with his practice, his teaching, and his original inquiries are written by others; the part assigned to me is the preparation of a memorandum outlining the principles to which he, as the organizer of a medical clinic, persistently adhered, and the methods he employed in their practical application. He had very definite ideas of what a medical clinic should be and he felt keenly the responsibility of seeing to it that the functions of the clinic were faithfully performed. For him, the welfare of the patients who presented themselves in the clinic for diagnosis and treatment came first; next, came into consideration how undergraduate and graduate students could best be taught; and, finally, came solicitude that every opportunity for contributing to the advance of our knowledge of internal medicine should be eagerly seized. He took care to promote in every way possible the material, the scientific, and the moral interests of all who were associated with him in his work; his personal advantage concerned him but little, though to anyone who aimed at such objects and achieved such purposes as he did, a modicum of profit and a maximum of honor and prestige were bound to accrue. The principles he fixed upon and the methods he used to illustrate them were manifoldly derived. In part they grew out of personal practical experience, in part they had their origin in other clinics in this country and in Europe. Men who were familiar with clinical work and clinicians in the larger centers of America, those who had "walked the hospitals" of London and Edinburgh,

those who knew the laboratories and the clinical institutes of Austria, Germany and Holland, and those who had visited the clinics conducted by the best internists in France, had no difficulty in recognizing the sources of certain of the features of the organization of the medical service in Baltimore. Professor Osler's clinic synthesized diverse elements into a harmonious whole; it represented a new form, good in itself for its time, and yet plastic enough to admit of remoulding at later need. The limits of this article will permit of only brief comment upon the plan of organization and upon the way it was managed.

Where activities are complex, be they those of a factory, of a business office, of a scientific laboratory, or of a medical or surgical clinic, organization and management are two executive functions that must be properly exercised, if the work is to be successful. Organization involves: (1) An investigation of the conditions that exist and of the requirements of the whole situation; (2) the planning of a scheme that will meet the requirements, that will effectively and systematically correlate the activities of the working force, the materials, the equipment and the working space, so that the functions of the institution shall be competently, speedily and economically performed; and (3) the actual installation of the system as planned. Management, or the art of conducting an establishment after its organization has been devised and initiated, involves: (1) The attainment of the results that are aimed at; (2) the overcoming of obstacles that are incident to the conditions under which the work has to be done; and (3) the application of knowledge and skill in the training of the staff, in the setting up and in the maintaining of standards, in the providing of suitable incentives, and in the establishing of right relationships between the leader and the led. The head of an institution, or of a department, who creates an organization that is adequate, and who manages it with skill, demonstrates his executive capacity.

On Professor Osler's appointment as physician-in-chief to The Johns Hopkins Hospital in 1888, he found certain con-

ditions already existing that were to some extent determining, at least as far as the general organization of the institution was concerned. The buildings already completed included one for general administration, with a building on each side of it for private patients, a long row of public ward buildings behind, a building for a general out-patient department, a nurses' home, a pathological laboratory, a general kitchen and a laundry. In other words, a "general hospital," in which medical and surgical patients (free and pay) were to be received, distributed and treated, and in which, later on, medical students were to be taught, had been constructed on the pavilion system. There was no spatial concentration of the work of the single departments in separate institutes such as had already developed in some of the European centers, or, as was later adopted in the institutes built for psychiatry and pediatrics on the grounds of The Johns Hopkins Hospital; on the contrary, to pass from some of his private patients in Ward B at the southwest corner of the grounds to some of his public-ward patients at the northeast corner, the internist and his staff were compelled to walk through corridors that extended along two sides of a square containing 14 acres! As in most general hospitals, the functions of general superintendency, financing, accounting, nursing, purveying and housekeeping had been centralized, and with them the heads of the clinical departments had but little to do. But, thus relieved of much administrative detail, the head of the medical department, who was appointed permanently and had a continuous service, was to have a large degree of autonomy in the diagnosis and treatment of patients, in the selection of his staff, in the character and amount of his teaching, and in the conduct of research. His staff was to consist (1) of younger men who lived in the hospital and gave their whole time to the department, and (2) of senior associates who lived outside, giving part of their time to the hospital and part to private practice. The chief of the medical service was to be paid a salary in order that he might make the work of the hospital and of the medical school his main occupation and interest, though he was permitted to supplement

his income and clinical experience by private consultations. The activities of the different clinical departments were to be correlated partly by the general superintendent of the hospital, and partly by a medical advisory board that made recommendations to the trustees of the hospital. When Professor Osler arrived, the buildings, and the general plan of organization already completed, had to be accepted as they were; the plans of his department had to be drawn so as to fit into them.

It was fortunate that The Johns Hopkins Medical School was not opened until 1893 and that clinical instruction of undergraduates did not begin until 1895, for six years were thus available for perfecting the organization of the wards, the out-patient department, the laboratories, the staff, the records, the library, the hospital, the medical society, and the care of patients in the hospital before the function of teaching undergraduates was added. Courses for post-graduate students were, it is true, offered during this period, but the number of candidates was small and the work was not burdensome. With few patients at first, a small staff, and a limited amount of post-graduate instruction, leisure was given for making plans (and for modifying them after small-scale trials in executing them), for instituting standards, for writing a text-book that concisely embodied the principles and practice of medicine and that was destined to have an unprecedented distribution among physicians and students, and, in general, for establishing traditions of the better sort in the clinic. With the organization thus far planned and installed before the students of the medical school entered upon their clinical work, it was a relatively easy matter to expand it and to adapt it to the functions of undergraduate instruction when the time for this arrived.

When the definitive history of Professor Osler's work in Baltimore is written, many details of his analysis of the functions of the clinic, of his applications of the principle of division of labor in the clinic, of his methods of selecting men, of assigning them to appropriate tasks, and of motivating them to high endeavor, and of the personal qualities through which

he exerted that profound and lasting influence upon patients, students, assistants, and colleagues for which he is so widely known, must be recorded. The scope of the present memorandum will permit mention of only a few of the more outstanding features of his organization and management, of those parts that made his clinic so successful a department of a university teaching hospital as it is known to have been.

One important element of success in the new clinic was the arrangement for a graded staff, particularly for a graded, whole-time, resident staff, among the members of which the responsibilities of the work were divided, not according to a so-called "military type," but rather in the manner of the so-called "composite functional type" of organization. The professor of medicine (physician-in-chief to the hospital), though giving most of his time to the work of the clinic, lived outside the hospital, as did the associate professors who "visited" the wards, the out-patient department, and the laboratories. The resident physician, the assistant resident physicians, and the medical internes lived in the hospital and were in close contact with the work always by day and as far as was necessary also by night. The resident staff of the clinic consisted of two parts: (1) A lower resident staff constituted by the medical internes appointed for a single year, usually on graduation with high standing from the medical school; and (2) an upper resident staff made up of the resident physician and several assistant resident physicians, usually men of exceptional promise, men who had already served as hospital internes and who were willing to enter upon a more or less prolonged resident service, often of several years' duration, in order to secure the best possible training for the "higher walks" of internal medicine. This upper staff was chosen partly from the lower staff, partly, in order to prevent "inbreeding," from members of the resident staffs of hospitals in distant medical centers. The position of chief resident physician, which carried with it large responsibilities and opportunities, was a prize to be won only by men of exceptional ability, extensive experience, and favorable promise. Thus, those receiv-

ing it in Professor Osler's time, included Henry A. Lafleur (1889-1891), William S. Thayer (1891-1898), Thomas B. Fitcher (1898-1901), Thomas McCrae (1901-1904), and Rufus I. Cole (1904-1906). The careers of these men during their terms of service and since illustrate on the one hand the wisdom of him who selected them, and on the other the growth-promoting influence of the duties and authority attached to the office. The assistant residents, even those who did not later become chief resident physicians, often continued in office for several years. Such an upper resident staff, supported by internes and by senior students, besides forming a whole-time group of enthusiastic young internists for development under ideal conditions, afforded an excellent working force for carrying on the routine of the wards, laboratories, and out-patient department; this left the physician-in-chief and his visiting associates largely free for planning, standardizing, supervising and controlling the practice in the clinic, for teaching, and for promoting original inquiries. The historian bent on analyzing the conditions of achievement in Professor Osler's clinic will do well to consider carefully the significance of this upper resident staff.

A second characteristic feature of the medical clinic organized by Professor Osler was the introduction of more extensive and more systematic courses of instruction in the practical-technical methods of gathering data regarding disturbances of structure and function in the sick than had before been customary. The importance of careful history-making and of accurate physical diagnosis had been, it is true, generally recognized; but the machinery of instruction in these forms of fact-accumulation had been inadequate in the majority of medical clinics, and one of the first tasks of the new clinic consisted in planning and installing a better organization for this purpose, and in seeing to it that the example set by all who participated in the practical work of diagnosis in the clinic was consistent with the methodological teaching. The most distinctive advance made in instruction in technique was, however, the establishment of a systematic course in the appli-

cation of the laboratory methods of chemistry, physics, and biology to the study of patients. Students in their third year of the medical school were not only taught the principles of these methods, but for two or three afternoons throughout the year were thoroughly drilled in the practical technique of these methods, so that, when the course had been completed, each student had attained to real skill in the use of all the more important ways of examining clinically the blood, the stomach juice, the feces, the urine, and the cerebrospinal fluid. No medical school has yet devised a perfect system of training, and the graduates of The Johns Hopkins Medical School, like those of other schools, doubtless exhibit certain special defects, but by common consent, they are well-trained in the methods of gathering clinical facts and especially in the technical procedures of the clinical laboratory. By many it is believed that, of the several contributions made by Professor Osler to the organization of the clinic, the development of the clinical laboratory and of the thorough education of students by competent instructors in clinical laboratory work before entering upon their duties in the medical wards is preponderant.

A third distinctive mark of the organization in Dr. Osler's clinic was the arrangement by which each student of the medical school became for a considerable period a member of the group that actually did the work of the diagnosis of disease and of the treatment of patients in the hospital. Thus each student in his third year, after having had instruction in history-making and in the elements of physical diagnosis, assisted, under the supervision and control of instructors, in recording histories and in making physical examinations in the out-patient department. More important still, through the fourth year of the course, each third of the class acted successively for three months as "clinical clerks" in the stationary medical clinic, giving their whole time to the work of the medical wards. Thus the medical staff was reinforced during the entire school year by 30 student assistants, who, under the eye of the resident staff, took the histories of all new

patients, assisted the internes in the making of the first physical examinations, made all the clinical laboratory tests on these patients, and accompanied their chief on morning rounds. At these rounds, the clinical clerk gave orally an epitome of the findings in the patient, watched the processes of control examinations used by the professor, and participated at the bedside in discussions of the pathological-physiological, pathological-anatomical, and etiological bearings of the case. He looked up recent articles on the subject and reported them at later ward rounds, followed the patient to the operating room if surgical procedure were indicated, watched the effects of the treatment employed in the case of each patient directly assigned to him, and kept in touch with him during convalescence at his home after discharge from the hospital, or in the event of a fatal issue attended the autopsy and the pathological-clinical conference that followed it. The fact that through all this he was regarded as an integral part of the working group of the clinic, the knowledge that the anamneses he registered and the results of laboratory tests he made became a part of the permanent records of the hospital, the feeling of responsibility he had when he realized that the diagnosis made and the treatment instituted were based in part upon data accumulated by him, the personal relationships established between student and professor at the hospital and on delightful Saturday nights at the professor's home at 1 West Franklin Street—all this combined to make the time of the clinical clerkship in Professor Osler's clinic a period of rich experience and of intense stimulation, never to be forgotten by any pupil who passed through it. Even in the more formal teaching of the clinic, it was Professor Osler's custom to permit the clinical clerk to have a share. Thus, at the main teaching event of the week, the crowded Saturday clinic in the amphitheater, where all the students of the third and fourth year, the whole resident staff, many of the visiting physicians of the hospital, physicians of the town and medical men from a distance were assembled, the clinical clerk gave a part of the clinic; he was always asked to tell the audience briefly (and

from memory unaided by notes) the main points of the anamnesis of the patient and was called upon from time to time throughout the hour to report on laboratory tests and X-ray findings, or to give his opinion of the significance of some datum. The pupil-teacher thus grew accustomed to facing a large audience and to thinking and speaking on his feet, an admirable preparation for some of the contingencies of later professional life. The student-assistantships in the out-patient department (in the third year) and the clinical-clerkships and all that they implied (in the fourth year) were, then, vital parts of the organization of The Johns Hopkins Medical Clinic.

Though the organization of the clinic in Baltimore presented, as we have seen, an interesting combination of novel features, no organization, no matter how well planned and installed, can function effectively without the skilful application of the art of management, and in the art of management the director of this clinic was to prove that he was a master. Thoroughly familiar himself with the principles, methods and problems of internal medicine, enthusiastic about, and for his time well trained in, the preclinical sciences that are fundamental, he possessed that personal experience in his subject and that superior ability that are always prerequisites to competence as a manager and to the command of the respect of those that are to be managed. He understood human nature and loved it, despite its faults and its frailties; no chief ever secured in greater measure the good-will and loyalty of his staff. Though he could be firm on occasion, he rarely found need to act as a strict disciplinarian. He was always cognizant of the good qualities of those about him, and though not blind to their defects he had learned that great lesson of successful management that, for most subordinates, a word of appreciation is of far greater value as a stimulus to good work than a volume of carping criticism. He possessed to an extraordinary degree the capacity of making you feel that he was interested in you and in your personal welfare; to come into contact with him meant, for most, the birth of a genuine affection for him.

He had an orderly mind and manner; he lauded punctuality in a doctor and was always punctual himself. He seemed never to be in a hurry and yet he wasted no time. Many a man recalling an interview that seemed leisurely when it occurred has been surprised, on analyzing it afterward, to find how brief it had been. He belonged to the first of the two groups—the “larks” and the “owls”—into which men have been playfully divided. He retired early and was an early riser. At one time he lived for some months in the hospital and it is asserted that men learned to set their watches at 10 p. m. by the sound of his boots as they dropped on the floor outside his door. His more important work was done in the morning hours; for him “great business must be wrought ere noon”; private consultations were relegated to the later hours of the day. His power immediately to grasp the significance of situations, his ability to make quick decisions, his unflinching tact and discretion, together with his wide sympathies and his lively sense of humor made it a pleasure to transact business with him. His ideals he kept ever before him and was ambitious to realize them, and these ideals and this ambition were alluring also to those whom he led. Much might be written, were there space, of the ways in which he overcame obstacles and met important emergencies, of the motives he appealed to when he desired to excite men to action or to arrive at a decision, and, in general, of those traits of character that act “directly by presence, and without means,” or what is sometimes called “personal magnetism.” Many of the qualities that make for successful management, though easy enough to recognize when they exist, are difficult of analysis and perplexing to the understanding. Some men are able to secure control without contest; “whether they stand or walk or sit or whatever thing they do,” they can place men under their power. Of such character-control and of prestige-control Professor Osler had his full share. But, more important than these, he had grasped, as it were intuitively, the newer principles of association and of group organization. A man of many selves, he could enter into helpful association with many

different groups, letting his mind interact with the other minds of each group for the purpose of arriving at ideas, feelings and impulses in common. More than most he had learned how to live with other men, to discuss without antagonism, to secure co-operation by the subtle psychic process of reciprocal penetration. In this lay the secret of his co-ordinating power. He knew not only how to bring the various activities of his clinic into proper relation with one another, but also how to link the clinic with other departments of the university, with the medical profession, with the public near and far, and with national and international associations of different kinds. Through his power as an organizer and as a manager Professor Osler might, then, have truthfully said, as did one of old, "I magnify mine office." And it is precisely capacity for such magnification of office that, along with ability to plan and to direct, is a distinguishing criterium of the superior executive.

SOME OF THE EARLY MEDICAL WORK OF SIR WILLIAM OSLER

BY W. T. COUNCILMAN

William Osler, the son of the Rev. F. L. Osler, was born in Tecumseh, Ontario, in 1849. He was one of a large family, and his ancestors were a vigorous, long-lived race. He graduated from Trinity College, Toronto, in 1868, began the study of medicine in the University of Toronto, and after two years went to McGill University, Montreal, where he received the M. D. degree in 1872. From 1872 to 1874 he studied abroad, working in the various London clinics, in the laboratory of University College, London, and in the laboratories and clinics of Berlin and Vienna. He came in contact with many eminent men, studied methods of work and of teaching, and the influence of this period of European study is seen in his after career. In 1873 he obtained the licentiate of the College of Physicians of London, in 1878 he was made a member of the college, and in 1884 was elected to the fellowship. In 1874 he returned to Montreal, was made lecturer on the institutes of medicine, and shortly afterwards was given the professorship. Under the institutes of medicine were comprised the courses in physiology and pathology, the latter limited to 20 lectures. At the end of 1874 he was made physician to the Small-pox Hospital, and in the following year, owing to the interest which he showed in comparative anatomy, the professorship of helminthology, in the Veterinary School of the university, was taken into his already full hands. I shall discuss here only his early work, extending through the first four years of the Montreal period.

Beyond the bare facts, we know but little of his early education. In his various writings there are only scanty allusions to it save in the Toronto address, in which he mentions three men who were his early teachers and to whom he

says he owes everything he has attained in life. These were the Rev. W. A. Johnson, of Weston, Ontario; Dr. James Bovell, of Trinity College, later professor of the institutes of medicine in Toronto University, and Prof. Robert Palmer Howard, of Montreal.

I have been able to learn but little of the Rev. W. A. Johnson, but it is evident that he was one of the many clergymen of the Church of England who have sought in various scientific pursuits a wider range of intellectual activity than is given by their profession.* I have gained this conception of the Reverend Johnson from two passages in the early writings of Dr. Osler. In the first article published by him (Canadian Diatomaceae, Canadian Naturalist, 1870) when he was a student in Toronto, he thanks him for assistance in the use of books and microscopical apparatus. In this article there is an admirable description of the structure, mode of division and propagation of the diatom, which is evidently based upon observation. The mode of motion of the organisms is discussed and he is inclined to accept the hypothesis advocated by

*The Scottish Church has produced very few of these men, and they have been rare in America. However singular this may seem, the reasons are obvious. The clergy of the Church of England possessed a liberal education, and the taking of orders did not demand any extensive preparation for the examinations. Most of them had an assured living in pleasant country surroundings, and the dogma was simple, fixed, and did not admit of controversy. Proselyting was not actively pursued in the English church, and the souls of their simple parishioners were not a serious care. They must have found little intellectual stimulus in the society of the country squires, and many of them were perforce driven into the study of botany and other branches of natural science. The Scottish church, on the other hand, demanded long and arduous preparation for the ministry, and most of its members did not have the background of a liberal education. Like the Scottish character, the church was a fierce, aggressive force, its dogma logical and uncompromising, and its defence and extension involved a constant controversy, which left little time for the calm study of nature. In this country the conflicts of the sects give sufficient intellectual diversion.

Professor Schultze, of Bonn. At the close he gives a list of 105 diatoms which he had collected and classified, giving also the localities where they were found and their frequency. He must have been for a long time interested in the subject and the organisms were collected over an extensive area. He gives credit to Mr. Johnson for having given him several of the specimens. He refers also to another clergyman, the Rev. Mr. Reade, who had invented a prism by the use of which the shell markings could be studied to better advantage, and which was loaned to him by Professor Bovell. The article shows familiarity with the microscope and capacity to use literature. The second reference to Mr. Johnson I have found in an article 12 years later (On Canadian Fresh Water Polyzoa, Canadian Naturalist, 1882) which was read before the Natural History Society. There is here also an admirable description of the organisms with the differentiation of the species, but its main interest is in showing how early Osler—probably through the influence of Mr. Johnson—became interested in the study of nature. “In the summer of 1867, during a visit of my friend, the Rev. W. A. Johnson, of Weston, I showed him the masses (the gelatinous aggregates of the *Pectinatella magnifica* of Leidy) and we agreed to subject them to examination by the microscope, not having any idea as to their real nature. Judge of our delight when we found the whole surface of the jelly was composed of a collection of tiny animals of surpassing beauty, each of which thrust out to our view in the zoophyte through a crescent-shaped crown of tentacles.” A foot-note speaks of another clergyman, the Rev. Thomas Hincks, as the distinguished authority on British polyzoa.

His second teacher, Dr. James Bovell, seems to have been an interesting character. He was born in Barbados in 1817, went to England in 1834, studied at Guy's Hospital, and took the medical degree in Glasgow in 1838. He then went to Dublin, studied under Stokes and Graves for several years and after a severe attack of typhus fever, against the advice of his friends, who predicted a brilliant medical career, returned to Barbados. From there he went to Canada in 1848; took part

in the establishment of the medical faculty of Trinity College, became dean and professor of the institutes of medicine, and also professor of natural theology. After the disruption of this medical school he held a similar medical position in Toronto University. In 1870 he returned to the West Indies where he remained until his death. While there he took orders in the English Church and published a book on Natural Theology. He was regarded as an impractical, improvident man, was loved by his students and friends and took great delight in metaphysical discussions. Osler came under his influence in Trinity College, and in Toronto University, and he has dedicated to him the first pathological report of the Montreal General Hospital. It is not improbable that, through these two men and the atmosphere of his home, Osler acquired the interest in biblical and ecclesiastical literature which was such a prominent characteristic of his later life.

The third of these men was Dr. Robert Palmer Howard, professor of medicine in McGill University, whom Osler speaks of as his second father. He was a greatly respected teacher and practitioner of medicine and exerted a wide influence, but he was not a prolific writer.

While in London, Osler published two articles from the laboratory of University College. The first, "On the Action of Atropia, Physostigma, and Curare on the Colorless Blood Corpuscles," was read before the Royal Microscopical Society in 1873, and published in its journal. Such a paper as this was rather unusual at the meetings of the society which were mostly taken up with descriptions of microscopes, methods of preparation of microscopic objects, etc. The object of the investigation was to determine whether the antagonism between atropia and physostigma, which Fraser had shown to exist, could be demonstrated in the behavior of colorless corpuscles under the microscope, and the result was negative. It was interesting to find in the same volume with the paper of Dr. Osler a long, interesting and scathing review of Bastian's *Beginnings of Life* which had just appeared.

The second article, "An Account of Certain Organisms Found in the Liquor Sanguinis," was published in 1874, appearing in the Proceedings of the Royal Society. This forms one of the most important of Dr. Osler's contributions to medicine and demands a more detailed description in order to do justice to the originality shown in this article. From the massive literature on the subject four articles may be singled out, each of which was an important contribution to knowledge. In 1865, in the article of Max Schultze on the blood, certain bodies afterwards known as blood plates were for the first time adequately described; the second was the article by Osler, the third by Bizzozero in 1882, in which he gave a new method for their study and showed the part they played in thrombus formation, and the fourth by J. H. Wright in 1910, who demonstrated their histogenesis. The name blood plates, given to the bodies by Bizzozero, has been adopted. It would be difficult to say who first saw and described them. At this period the fresh unstained blood was being actively examined by many with a view to the discovery of micro-organisms which might be the cause of infectious diseases. Zimmermann, in Rust's *Magazin f. d. gesammte Heilkunde* in 1846, and again in *Virchow's Archives*, Vol. 18, 1860, saw and described the bodies as small globules which he regarded as the elementary corpuscles from which the blood cells develop, but his description was very vague and he did not sharply separate them from other granules in the blood. The very remarkable article on the blood cells by Max Schultze conceals by its title "Ein Heizbare Objecttisch und seine Verwendung bei Untersuchungen des Blutes" (*Arch. f. Mikro. Anatomie*, Bd. I, 1865), the subject of the article much better than usually happens, in spite of the ingenuity which is often displayed in doing this. After a description of the varieties of the white corpuscles, the accuracy of which excites our admiration even now, he says "In the blood no constituent is without importance, and in conclusion I will call attention to a normal form constituent of the human blood which up to the present has been entirely neglected. I find in my blood and in the blood

of numerous persons of different ages more or less abundant, irregular masses of colorless globules, the masses varying in size according to the number of globules which compose them. The globules themselves are from one to two micra in diameter and also occur separately in the blood. I have found three, four and even hundreds joined together, forming plaques of irregular size, 80 or more micra in diameter. These structures, on account of their irregular size and shape, give the impression of broken up tissue elements." *

This was the condition when young Osler was probably given the subject for investigation in the laboratory. He showed that these granular masses of Schultze were not present in the circulating blood, but were formed at the moment of examination by a rapid aggregation of the single bodies. He showed this by microscopic study of the blood, and also by the direct examination in salt solution of small clippings from the connective tissue of the rat in which he found the single bodies and not the masses of them, within the small blood vessels. He also showed that the conception of their presence in the blood in aggregations was untenable because the masses could not pass through the capillaries. He described the small bodies as exhibiting amœboid activity and saw filaments form in connection with them, which were probably fibrin. The article is admirable, clear and concisely expressed, with full literature references. The next reference to the blood plates is in an article "Infectious Endocarditis" (Seguin's Arch., 1881), and here he anticipates Bizzozero's view of the part they play in thrombus formation. "In one case of mitral stenosis a fresh vegetation when teased showed many closely packed spherules, some of which were larger than those met

* I have quoted from this article for one reason because it was used as a reference in the course of physiology given by Newell Martin in 1878, and the plate when I opened the volume appeared as a familiar friend. No one appreciated more than did Doctor Osler the importance of familiarizing students with the original sources of knowledge, and this was always done in Martin's laboratory.

with in the ulcerative form. [These were the masses of micrococci.] I was greatly struck with the resemblance which certain of these bodies, in this instance, bore to the individual elements of Schultze's granule masses—those peculiar, granular clumps common in the blood of some animals and of impoverished * persons." In 1882 there appeared a further article, "Ueber den dritten Formbestandteil des Blutes," in the *Centralblatt f. d. med. Wissensch.*, No. 30, in which he emphasized the part they played in the formation of thrombi and a final article "On the Third Corpuscle of the Blood," *Medical News*, 1883, a rather popular presentation of the subject.

Osler returned to Montreal in 1874, bringing to his future work a remarkable equipment. He was 25 years old, possessed a vigorous healthy body, and a well-trained mind. His family was well and favorably known in the community, which gives no small advantage in a conservative society. He had received a valuable education, probably more valuable though different from that which men are now receiving. He had come into close contact with men of high ideals and good methods of work, he possessed the methods by which knowledge is obtained and had already made important contributions which gave him a reputation. He further had enthusiasm and the art of inspiring this in his students, native kindness of heart, a candid, open disposition, a great capacity not only for making friends, but for arousing the feeling of affection, and a fine sense of humor, never used to hurt, which made him a sought and delightful companion. He wrote well and easily, expressed himself simply and clearly, leaving no doubt as to the meaning, and the matter was well arranged. In spite of the number of these early articles, they all show care in preparation. He had also great capacity for work, and ambition, with a definite end in view. For such a man there are always

* Osler did not usually use such ambiguous expressions; the presence of such masses in the blood might be regarded as one of the disadvantages of economic poverty.

opportunities waiting, and Osler found them in Montreal, as he would have found them anywhere, even with his friend Bovell in Nevis.

In the latter part of 1874, in addition to his position in the university, he was made physician to the Small-pox Hospital, which gave him opportunities for clinical study and an interest in the disease which he has always retained. With the salary which the position gave he purchased microscopes for teaching in the medical school. In 1876 he published in the *Canadian Medical and Surgical Journal* three articles on small-pox: (1) "The Initial Rashes of Small-pox"; (2) "On Hemorrhagic Small-pox"; (3) "A Form of Hemorrhagic Small-pox," which are valuable contributions to our knowledge of the disease. They show accurate observation, good clinical judgment and a marked power of differentiation of conditions both clinical and pathological. He had studied skin diseases with Tilbury Fox in England, and the influence of these studies is shown here. It was an important work for him, for in the Small-pox Hospital he first acquired the power of close observation of skin lesions and the ability of differentiation and description which was afterwards such a marked feature in his clinical work.

A very interesting article appeared in the same journal in 1876, "On the Pathology of Miner's Lung." It is based upon the examination of the lungs of a coal-miner who died in the Small-pox Hospital, and in whom the condition was very marked, and several other cases showing various degrees of the same condition. It is a good piece of work, shows much originality, and is to be regarded as the best article in English on the disease, which was first described by Pearson in 1813. In this article for the first time the large mononuclear phagocytes were differentiated from the smaller corpuscles, and Osler showed that the large cells were those most actively concerned in the phagocytosis of the carbon. He says: "One most curious specimen was observed. On an elongated piece of carbon three cells were attached, one on either end and a third in the middle, so that the whole had a striking resem-

blance to a dumb-bell. I could hardly credit this at first, until by touching the top cover and causing the whole to roll over, I quite satisfied myself that the ends of the rods were completely embedded in the corpuscles and the middle portion entirely surrounded by another." His description of the position of the carbon in the lungs and its relation to the lymphatics is accurate. He gives a figure of a microscopic piece of coal which was found and which showed the scalari-form tissue of ferns, thus proving its origin, and another piece with two holes representing the dotted cells of firwood. In conclusion, there is an experimental study of the effect of foreign bodies in the tissue made by the injection of india ink into the axillæ and lungs of kittens.

The study of the blood plates gave him a familiarity with blood examination which he utilized in the study of anæmia, and there are several papers on this in 1877. The first of these, "A Case of Progressive Pernicious Anæmia," was published in association with Dr. Gardner in the *Canadian Medical and Surgical Journal*. It is probable that Osler wrote the paper and was responsible for the blood examination and the description of the autopsy, which showed the usual conditions found in the disease. It is a good type of medical paper, the descriptions of the blood and of the marrow changes are accurate, and the relation between the blood changes and the marrow, which had been described by Cohnheim in the same year, is confirmed. An abstract of this article, with detailed measurements of the various blood cells "Ueber die Beschaffenheit des Blutes und Knochenmarkes in d. progressiven pernicioser Anämie" was published in the *Centralblatt f. d. med. Wissensch.*, 1877, No. 15, and a second article in the same journal on the study of a second case. Another article on the same subject, in which he was associated with Dr. Bell, appeared in the *Transactions* of the Canadian Medical Association, and here he gives Addison the credit for having first recognized and described the disease under the name of idiopathic anæmia. There is a final article in the following year, "Entwicklung von Blutkörperchen im Knochenmark

bei perniciöser Anämie," *Centralblatt f. d. med. Wissensch.*, 1878, in which he confirms Neumann's results of the study of blood formation in the marrow.

During this period also he wrote a number of articles on comparative pathology, the first on "Verminous Bronchitis in Dogs, with Description of a New Parasite" was published in the *Veterinarian*, London, 1877. He found this parasite in the bronchi in an epidemic among dogs in Montreal. He gives an accurate description of the parasite, and the points of differentiation. It has been accepted as an original description and credited to him, the name *Filaria osleri* being one of its synonyms. The only mistake he made was in classing the organism among the strongyli and not the filariæ, the main difference being that the strongylus is oviparous and the parasite described by him produces living embryos. The lobular pneumonia which he found, associated with the presence of the parasites in the bronchi, he referred to the inhalation of inflammatory products produced by them. The paper closes with a discussion of the mode of infection which he thought was by the direct inhalation of the dried embryos and it would have been more valuable had he subjected this theory to experimental test. There is also a paper on *Trichina spiralis* (*Canadian Journal of Medical Sciences*, 1876) which gives a good description of the disease and the life history of the organism, but which does not add anything new, and there are a number of other articles which appeared at intervals up to the time he left Montreal for Philadelphia. In the last article, "An Investigation into the Pork Supply of Montreal," which was conducted in association with one of his students in the veterinary school, A. W. Clement, who was afterwards well known in the early days of the pathological laboratory of The Johns Hopkins, he speaks of having made 900 autopsies in Montreal, in four of which trichinæ were found.

There are two interesting addresses in the period. The first was to the graduating class in medicine in 1875. It was probably the habit of the faculty to place the burden of such an address upon the youngest member. Reading over this address,

one is conscious that Osler had very little interest in it. Probably he looked over other addresses given on similar occasions and they must have been a very poor lot. He gives the usual good advice to the students, telling them to keep up their reading, to observe patients well, and even at this early period introduces Sir Thomas Browne, but he does not use him effectively. It seems by far the worst thing he ever published; there is no trace of humor in it, and no indication of the remarkable power he showed in his later addresses.

The second address is of a totally different character. It represents much more work and care in preparation, as though Osler had concluded that giving addresses was to be part of his future work and that they should be good. There are a number of quotations, many of them apt, the usual good advice to students, and some really inspiring sentiments, well expressed. For instance, "You will have moments when the way appears rugged, and the outlook dark, but never fear; others have succeeded in the face of the same difficulties, and with patience and perseverance you will do so too. Banish the future. Live only for the hour and its allotted work. Think not of the amount to be accomplished, the difficulties to be overcome, or the end to be attained, but set earnestly at the little task at your elbow, letting that be sufficient for the day, for surely our plain duty is 'not to see what dimly lies at a distance, but to do what lies clearly at hand.'" It is difficult to give a student better advice than this. Of the family physician he says "But while the soldier and the statesman win honor and fame, the family physician will draw to himself the love and gratitude of manifold hearts; he will have no enemies, martial or political; and his labors, if directed by a wise and prudent skill, will be for the welfare and benefit of all."

From 1872 to 1878 was a great period in medicine; it just preceded the bacteriological era in which the nature of infection was established; Pasteur had completed his studies on fermentation and the silk-worm disease and was in the midst of his revolutionary work on anthrax; Koch, an obscure country physician, was beginning his studies on bacteria and

developing the methods which made their scientific study possible; Virchow was at the height of his fame; Cohnheim and Weigert had begun in Breslau and in Leipsic their remarkable work; a new university in Strasburg had just been established which became famed through its products; physiology, in England and under Ludwig in Leipsic, had taken a new life; Lister in England was in the midst of the work which revolutionized surgery; the modern medical clinic was slowly being established, and medicine was becoming scientific, its procedures based upon knowledge and not conjecture; new ideals and methods in medical teaching were being everywhere introduced; America was feeling the enormous stimulus of the promise given in the establishment of The Johns Hopkins University. Osler was under the stimulus of all the new life. He could easily have become a great scientist, but he chose the path which led to the formation of the great clinician which he became; a worthy associate of the great men who have made English medicine famous.

OSLER AS A PATHOLOGIST

BY WILLIAM G. MACCALLUM

The statement may be safely ventured that no clinician in English-speaking countries has had at his command such a wide and detailed knowledge of morbid anatomy as Osler. There may be different opinions as to the reasons for his greatness as a teacher, as a man among men and in other ways, but hardly more than one opinion as to the foundation of his greatness as a clinician.

In the two small volumes of Pathological Reports printed at the McGill University, in a complete collection of reprints of his papers beginning in 1877, and in the first edition of his Practice of Medicine, the development of his knowledge of pathological anatomy may be clearly traced. Throughout there is no diminution in his keen enthusiasm and little change in the character of his interests, but there is an extraordinary advance in the clarity of his ideas keeping pace with the discoveries of the European and other workers in the field of pathology.

During a period of more than 40 years—years that have witnessed the most phenomenal advances in medicine—his attention was very largely devoted to these studies which were constantly maintained as the basis of his more purely clinical work.

Osler's training lay not in chemistry—the growth of bacteriology found him a spectator and experimental methods seem to have had little attraction for him. Nor did he attempt any protracted researches in pathology for its own sake. Instead his interest was and has always been in the observation of rather gross and striking anatomical alterations, usually on account of the symptoms which they produced and not with the aim of investigating their minute details or their ultimate

causes. In all this he has shown himself critical and sane and quite unwilling to pursue what seemed a fantastic theory unless convinced by definite proofs. He was skeptical of the malarial organisms of Laveran for a time until he became familiar with them himself and demonstrated them in this country. He would not believe that the micrococci found in acute endocarditis were anything more than accidental invaders until he had convinced himself by actual studies of the valves.

But in his early days he did not wait for others to unearth new facts. He pressed ahead alone in the investigation of unexplained phenomena and was perhaps the first to see clearly the blood platelet which he described in 1874 as the third corpuscle of the blood.

He was early in the field with his studies of the bone-marrow in pernicious anæmia and evidently recognized megaloblasts and other cells at a time when such recognition must have been very difficult.

But from the beginning he appears to have been more readily interested in the physical aspects of morbid anatomy, especially in so far as there could be traced a chain of events. In the first volume of the McGill reports he describes a case of idiopathic hypertrophy of the heart, the topography, and effects of various aneurysms, cases of phthisis, pneumonia, cancer, ulcer of the duodenum, typhoid fever with perforation, incarceration of the ileum, etc. In the second volume is found a series of similar miscellaneous cases. Some of these were remarkable as, for example, the instance of aneurysm of the hepatic artery. It is to be noted that even in his discussion of these cases he showed that the special literature of foreign countries was quite at his command. He met with a case of hypertrophic cirrhosis of the liver—the first in his experience—and while he was studying it there appeared Hanot's thesis, the importance of which in relation to his own case he recognized at once. From this period at McGill University where he performed a great many postmortem examinations and supervised them in the hands of students he acquired much

of his familiarity with morbid anatomy. It is his spirit of serious research which has remained to inspire the splendid work in pathology carried on ever since in that school and his preparations formed the foundation of their magnificent museum of pathological anatomy.

Osler was impressed from the beginning with the usefulness of considering together a group of series of similar cases. There is something statistical about this plan, but since no two cases of any disease are precisely alike in all details, much light comes from the study of a series. This method may be traced through the work of his later years and in that of all of his pupils. It is apparent in all the papers of his Philadelphia and Baltimore periods and reveals his careful method of preserving minute notes on all he saw, for some of the recent studies refer back to cases encountered in the Montreal days.

Comprehensive papers on endocarditis, tuberculous pleurisy, peritonitis, pericarditis and abdominal tumors, followed and later similar analyses of long series of cases of typhoid fever, meningitis, erythema multiforme, Addison's disease, myxœdema, splenic anæmia, malaria and many other conditions. In these there is a sustained and constant interest in the pathological anatomical changes, but rather in their relation to the general history and symptomatology of the disease than for their own sake. The details of the causes and development of the lesions are discussed only briefly, but an important outcome of such studies was in several instances the more definite outlining of disease entities from the recognition of the repeated occurrence of the same group of symptoms and pathological alterations.

This has long been the first great step in the study of disease and it is for this reason that many of the great names in medicine are associated with the diseases in which they have been the first to discern the constancy of the association of several features. The ability to see these relations and to connect a group of phenomena with a common cause is given to few. It is only less difficult than to discover the hidden cause of disease.

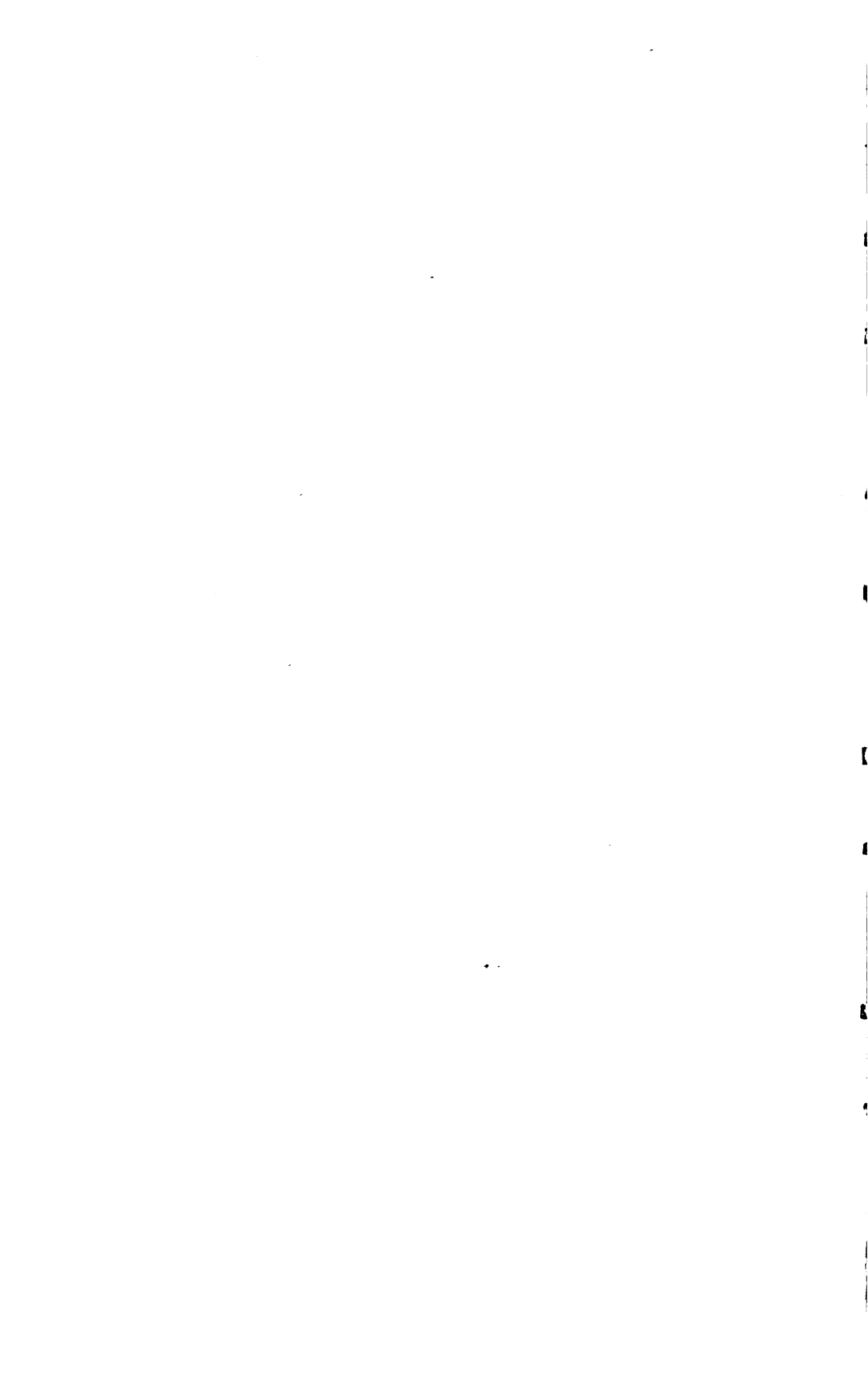
On the other hand, with diseases well recognized by everyone, Osler's interest in new manifestations and new combinations of symptoms or lesions has been unflagging. After the long period of observation and study of typhoid fever in which he associated with himself all the men on his staff he analyzed the disease from every point of view. However, in these studies only the grosser anatomical changes are considered and there was no special advance in the knowledge of the bacteriology or immunity reactions of the disease.

Syphilis has always claimed much of his attention and interest, although he has written little on it except in the form of text-book articles and papers concerning aneurysms. Nevertheless, the multifarious manifestations of this disease have formed a prominent subject in his teaching and he believed that there was much in the statement that he who knew all of syphilis knew nearly all of medicine.

In his later years he worked no longer at actual dissections and no longer studied the details of pathological anatomy with the microscope, but he never slipped into that state of confidence in unaided clinical diagnosis which would allow him to remain away from the autopsy room. Instead he came there not only to follow minutely the dissection of cases from his own hospital service, but to learn what he could from those belonging to the surgical and other services. His presence was an inspiration that led us to great efforts toward careful work, and his long experience and unflagging memory, which enabled him to recall the conditions found in a whole series of similar cases, gave us a background upon which the case under investigation stood out.

The pathological anatomy of his text-book is of this quality and it is for that reason that the students in pathology are told to read it. No one has written more systematically, or more concisely of the changes underlying the manifestations of disease; no one has recognized more clearly the boundary line between the known and the unknown or sifted more judiciously and unerringly the truth from error. His long habit of considering each disease on the basis of knowledge gained from

the analysis of a large series of cases has allowed him to estimate justly the relative frequency and importance of each feature and to state them in the most helpful and orderly sequence. This clearness of vision with regard to the actual natural history of disease, always referring to a well-remembered series of cases, helped to make his teaching a memorable delight to his students. His actual contributions to our knowledge of pathology are many and important, but even more valuable to the science of medicine in general is his example, in that he has built his clinical medicine solidly on a foundation of pathological anatomy.







1913.

OSLER, THE TEACHER

BY W. S. THAYER

Observe, record, tabulate, communicate.

Use your five senses. The art of the practice of medicine is to be learned only by experience; 'tis not an inheritance; it cannot be revealed. Learn to see, learn to hear, learn to feel, learn to smell, and know that by practice alone can you become expert. Medicine is learned by the bedside and not in the classroom. Let not your conceptions of the manifestations of disease come from words heard in the lecture room or read from the book. See, and then reason and compare and control. But see first. No two eyes see the same thing. No two mirrors give forth the same reflection. Let the word be your slave and not your master.

Live in the ward. Do not waste the hours of daylight in listening to that which you may read by night. But when you have seen, read. And when you can, read the original descriptions of the masters who, with crude methods of study, saw so clearly.

Record that which you have seen; make a note at the time; do not wait. "The flighty purpose never is o'ertook, unless the deed go with it."

Memory plays strange pranks with facts. The rocks and fissures and gullies of the mountain-side melt quickly into the smooth, blue outlines of the distant panorama. Viewed through the perspective of memory, an unrecorded observation, the vital details long since lost, easily changes its countenance and sinks obediently into the frame fashioned by the fancy of the moment.

Always note and record the unusual. Keep and compare your observations. Communicate or publish short notes on anything that is striking or new. Do not waste your time in compilations, but when your observations are sufficient, do not let them die with you. Study them, tabulate them, seek the points of contact which may reveal the underlying law.

Some things can be learned only by statistical comparison. If you have the good fortune to command a large clinic, remember that one of your chief duties is the tabulation and analysis of the carefully recorded experience.

The collection and study of your own observations is much, but he who works in his own small compartment leads, after all, a restricted and circumscribed life. Go out among your fellows, and learn of them. The good observer is not limited to the large hospital. The modest country doctor may furnish you the vital link in your chain, and the simple rural practitioner is often a very wise man.

Respect your colleagues. Know that there is no more high-minded body of men than the medical profession. Do not judge your confrères by the reports of patients, well meaning, perhaps, but often strangely and sadly misrepresenting. Never let your tongue say a slighting word of a colleague. It is not for you to judge. Let not your ear hear the sound of your voice raised in unkind criticism or ridicule or condemnation of a brother physician. If you do, you can never again meet that man face to face. Wait. Try to believe the best. Time will generally show that the words you might have spoken would have been unjust, would have injured a good man, and lost you a friend, and then—silence is a powerful weapon.

When you have made and recorded the unusual or original observation, or when you have accomplished a piece of research in laboratory or ward, do not be satisfied with a verbal communication at a medical society. Publish it. Place it on permanent record as a short, concise note. Such communications are always of value.

Mix with your colleagues; learn to know them. But in your relations with the profession and with the public, in everything that pertains to medicine, consider the virtues of taciturnity. Look out. Speak only when you have something to say. Commit yourself only when you can and must. And when you speak, assert only that of which you know. Beware of words—they are dangerous things. They change color like the chameleon, and they return like a boomerang. Do you know the story of the young physician, about to enter practice,

who was sent by his father to his old friend, Sir William Stokes, for advice? A pleasant conversation, and, at the doorway, a last word: "Charley, don't say too much." Then, at the gate, a voice: "Charley, come back a minute; I'm very fond of you, my boy; don't *do* too much."

"Don't do too much." Remember how much you do not know. Do not pour strange medicines into your patients. Our greatest assistance is given by simple physical and mental means, and by the careful employment of such drugs as have been adequately studied, with regard to the action of which we have real information. Do not rashly use every new product of which the peripatetic siren sings. Consider what surprising reactions may occur in the laboratory from the careless mixing of unknown substances. Be as considerate of your patient and yourself as you are of the test-tube.

Familiarize yourself with the work of others and never fail to give credit to the precursor. Let every student have full recognition for his work. Never hide the work of others under your own name. Should your assistant make an important observation, let him publish it. Through your students and your disciples will come your greatest honor.

Be prompt at your appointments; that is always possible. Many are always late at a consultation; few miss a train. There is no excuse for tardiness.

Live a simple and a temperate life, that you may give all your powers to your profession. Medicine is a jealous mistress; she will be satisfied with no less.

Save the fleeting minute; do not stop by the way. Learn gracefully to dodge the bore. Strike first and quickly, and before he has recovered from the blow, be gone; 'tis the only way. . . .

If you can practice consistently all this, . . . and then, if you can bring into corridor and ward a light, springing step, a kindly glance, a bright word to every one you meet, arm passed within arm or thrown over the shoulder of the happy student or colleague; a quick, droll, epigrammatic question, observation or appellation that puts the patient at his ease or brings a pleased blush to the face of the nurse; an apprehen-

sion that grasps in a minute the kernel of the situation, and a memory teeming with instances and examples that throw light on the question; an unusual power of succinct statement and picturesque expression, exercised quietly, modestly and wholly without sensation; if you can bring into the lecture room an air of perfect simplicity and directness, and, behind it all, have an ever-ready store of the most apt and sometimes surprising interjections that so light up and emphasize that which you are setting forth that no one in the room can forget it; if you can enter the sick-room with a song and an epigram, an air of gaiety, an atmosphere that lifts the invalid instantly out of his ills, that produces in the waiting hypochondriac so pleasing a confusion of thought that the written list of questions and complaints, carefully compiled and treasured for the moment of the visit, is almost invariably forgotten; if the joy of your visit can make half a ward forget the symptoms that it *fancied* were important, until you are gone; if you can truly love your fellow, and, having said evil of no man, be loved by all; if you can select a wife with a heart as big as your own, whose generous welcome makes your tea-table a Mecca; . . . if you can do all this, you may begin to be to others the teacher that "the chief" is to us!

An eye whose magic wakes the hidden springs
 Of slumbering fancy in the weary mind,
 A tongue that dances with the ready word
 That like an arrow seeks its chosen goal,
 And piercing all the barriers of care,
 Opens the way to warming rays of hope.
 A presence like the freshening breeze that as
 It passes, sweeps the poisoned cloud aside.
 An ear that 'mid the discords of the day
 Swings to the basic harmonies of life.
 A heart whose alchemy transforms the dross
 Of dull suspicion to the gold of love.
 A spirit like the fragrance of some flower
 That lingers round the spot that this has graced,
 To tell us that although the rose be plucked
 And spread its perfume throughout distant halls
 The vestige of its sweetness quickens still
 The conscience of the precinct where it bloomed.

OSLER AND THE STUDENT

BY THOMAS R. BROWN

In a lay sermon delivered before the Yale students a few years ago in which Dr. Osler offered them "A way of life"—"a path in which the wayfaring man cannot err, a life in daylight compartments, the main business of which is not to see dimly at a distance, but to do what lies clearly at hand," and which had been the starting point of his life-habit—he began with two words which show more plainly than many pages could his real relation to the student—for these two words were "fellow students." In these words lay the real reason for his unique and lasting influence upon all who studied with him, for he, with his vast experience, his wonderful insight, his profound knowledge, his poetic vision, his deep sympathy, was still always at heart the student, always studying, always delving more deeply into the mysteries of health and of disease, giving always, yet always ready to receive, teaching, yet ever ready to learn.

To those privileged to be his students in the early days of the medical school—a truly golden age to each and every one of the small, though ever-growing group, he preached, as he lived, a glorious philosophy of life, a joy in work, doing the day's tasks, "living for the day and for the day's work," with a wonderful belief in his fellowmen, never losing faith because some had failed him, giving without stint his best to everyone with no thought that some might prove unworthy of the trust. He felt with Goethe that "the classical is health, and the romantic disease," and he strove for the one with the Greek love of perfection, while for the other he had the passion of the truly adventurous spirit sailing on uncharted seas. To us who were his students in the early days of The Johns Hopkins Medical School, his memory is so vivid, so fresh, that it seems but as of yesterday when he worked and played in our

midst, and we have but to close our eyes to see him in fancy, almost as clearly as we saw him in fact in the late 90's, the great teacher and the great student in his manifold relations to his students. Now we see him riding to the hospital in the Monument Street car, and to the group about him prophesying with keen yet ever kindly vision the ills—physical, mental and spiritual of the derelicts en route to the dispensary; here in the wards demonstrating the complex psychology of Giles de la Tourette's disease, as exemplified by a poor bit of sodden humanity whose coprolalia but exemplified—in a way a bit embarrassing at times it is true—the symptom-complex he was discussing, or in an alcove off the ward playing with little Theophilia as she was emerging from the night of cretinism into the day of normal happy childhood under his skillful guidance; now in the class-room of the dispensary—for he loved the polyclinic, and believed in its wonderful potentiality as a teaching factor—with one deft touch solving a case of great complexity, or bringing from his vast storehouse of knowledge the one last link needed in a disease-picture hitherto poorly understood, listening, suggesting, directing, teaching, guiding both student and patient, and all the while filling countless scraps of paper with the names of one of the three great teachers of his youth; now in the clinical laboratory studying a blood specimen, and suggesting to the student some line of original investigation which might, perhaps, light into flame the dormant investigator and research worker; now in the autopsy room studying in death the puzzles that he had helped to unravel during life; now walking through the wards and corridors of the hospital with a smile or an epigram for every doctor and nurse who passed, a kindly word, and his ever-stimulating psychotherapy—encouragement, optimism, hope—to every patient he saw; in his myriad activities always making each student feel that he also was but a student of health and of disease, of men and of morals, and yet such a student as to fire our minds, our souls and our bodies to renewed efforts so that we might, in some measure at least, prove worthy of this fraternity. To us who were privileged to be his

students—his fellow students in those days, he was—and still is—always our inspiration and always our model. In him the fire burned so brightly that no dross nor tinsel could survive its pure flame, and he was ever “our cloud by day, our pillar of fire by night.” With Bossuet he taught that “le bon sens est le génie de l’humanité,” and he gave to us “a golden age which never rusts, a spring which never fades, eternal youth.” Always true to himself and to others, he made us think daily of words of his beloved Plato “Whence has the progress of cities and nations arisen if not from remarkable individuals coming into the world we know not how and from causes over which we have no control?”

Is not the greatest tragedy of growing older the loss of our illusions—the discovery sooner or later that so many of the gods of our youth, Jove-like Olympians of those days when our world was young and pregnant with possibilities, have, after all, but feet of clay? But with “the chief” this could never be. The more we learned, the more wonderful his boundless knowledge seemed; the wider our vision, the more limitless his appeared.

Everyone who has ever been his student is, as it were, still studying with him, or peripatetically following his footsteps as he journeys through life, always teaching some new lesson of medicine or of living. Every honor that has befallen him has enriched us and made us prouder of our brotherhood; every step upward or onward of his has made our paths easier and the heights seem not so far away. We have rejoiced in his happiness and in his honors, and perhaps he has been helped in his sorrows by the knowledge that they are ours as well, for he has shown us how work could be made play, and how the real could be made ideal. Because of him our lives have been better, our successes more real, our failures less hard to bear, for through the tangled skein that spells life each of us knows that in him he has, and will always have, a teacher, a friend, and a true fellow student to the end of the chapter.







OSLER AND PATIENT

BY THOMAS McCRAE

In all the relations of physician to patients there are two sides—the strictly medical and the personal. Some have a blind spot for the latter, but taking the profession as a whole these are in the minority. No one could work in close association with Sir William Osler without realizing that both sides were well developed in him. There was always the desire to do the best for the patient in a medical way, but the personal aspect was never forgotten. Patients were patients and not cases. Interest in the personal side was much in evidence and it was the exception for his patients to fail in appreciating this. There was always a great charity for the weakness of human nature and there were neither unkind nor hasty judgments. We know how often in his addresses he has emphasized the importance of this quality.

To the writer was given the opportunity of knowing the relation of Sir William Osler to the patient both by personal experience and by the observation of others. The former came by my having an attack of typhoid fever while a house officer in The Johns Hopkins Hospital. After the passage of years it is difficult to estimate in detail one's feelings towards his physician, but the main impression left on my mind after a long interval is that of absolute confidence. His visits were usually short, but when he had gone there was a feeling that everything was all right. The visit was nearly always marked by some cheering saying or amusing quip.

One incident comes to memory with regard to the impression made by him on a patient many years ago; it is also an example of curious coincidence. Back in the eighties one of my father's friends was stricken with a malady of which I heard some of the details discussed without realizing that they

were to be remembered. The patient had Addison's disease with an unusual degree of pigmentation which attracted great attention and was naturally commented on by his friends. I remembered hearing that he had gone to the United States to consult a physician and had come back realizing that he could not recover. These matters had apparently been completely forgotten, but were recalled when 25 years later the friend who accompanied the patient on the journey said to me: "I wonder if you could help me to identify the physician whom Mr. X consulted in Philadelphia. His name made little impression on me at the time." This seemed rather a difficult undertaking, but I asked what he remembered of the visit. He gave the following details: "The examination was very thorough; he stripped Mr. X and went over him from head to foot. He said very little. (At this point the thought of Sir William came to my mind.) When Mr. X asked him as to the outlook, he said, 'Do you think you have enough of the grace of God to make a clergyman,' or something like that. At any rate Mr. X understood the meaning which was intended and commented with approval on the way in which it was conveyed." Afterwards I asked Sir William if he was the physician, and found that he was and that he remembered the patient very well.

This brings up another of his characteristics with regard to patients—the marvellous memory which he has of the details regarding many of them. On one occasion a physician brought a patient to consult him. The physician began to give the history when Sir William said: "I saw Mr. — before with so and so"—mentioning the diagnosis. Both the physician and the patient denied this until Sir William showed them the notes of the previous visit. It seems almost impossible to imagine that both should have forgotten the consultation, but such was the case. On many occasions patients came back to the clinic after an interval of years and Sir William could give the details of the history at once.

In one of his essays, which gives the title to a book, "Aequanimitas," he dwells on the importance of not permitting one's

poise to be disturbed or allowing the expression to show what would be better concealed. He practised this in his daily work and many who came in contact with him never realized how much anxiety he often felt, but rarely displayed over patients. This was particularly true if it was a case in which a diagnosis had not been made and in which, therefore, the best treatment was a question of doubt. One such instance comes to mind of a young man with typhoid fever and severe hemorrhages. In this case, of course, we were suspicious of perforation. Sir William made a special trip to the hospital at my request to try and settle this point. The decision was that there was no positive evidence of perforation and exploration was delayed, but the signs of general peritonitis next day showed our error. I remember well his words on the fallibility of human judgment and of the sorrow that one felt when he had judged wrongly.

His influence over patients was marked and especially over those unfortunates whose nervous systems had suffered. As a general rule he did not spend a great deal of time over them in the hospital. However, the results came; in many cases no doubt, largely by faith in him. It has been said by some that Sir William was not particularly interested in psychotherapy, but one might say that he did not need to be—he practised it, not always consciously, perhaps, but always effectively. He had extraordinary patience with querulous patients and it was very rarely that he ever became irritated with them. With the patient who was ready to fight and be disagreeable he never argued: "Glad to see you come and glad to see you go" was a favorite answer.

Many interviews with patients come to memory. In one the center of the stage was occupied by a nervous woman, to whom something had been said in a very kindly way of the need of self-control. With the tears flowing freely and a handkerchief in active use she said: "Oh, Dr. Osler you misjudge me cruelly." He, standing at the foot of her bed, replied with a serious tone to his voice and a twinkle in his eye: "Madam, I learned early in life never to *judge* any woman and that rule

I have strictly kept. Therefore, I cannot have *misjudged* you. Good morning"—and he was away before she could frame a reply. Later in the day the brunt of his hasty exit fell on me.

In a large private ward service it was not possible for him to spend a long time with each patient. To his house officers it was always a source of interest and a good lesson to observe how he could get into and out of a patient's room without giving a chance for the flood-gates of talk to open. Many patients would lament that they had not been able to tell him this or that. But with this he had a remarkable ability in discerning when the patient needed a special interview and he was always ready to give it.

There was one subject on which he would never listen to a patient, and that was when something was said which reflected on another physician. When the patient began any such statements he showed his displeasure at once and if this was not enough a very sharp rebuke followed. In fact this was about the only thing which made him lose patience and was the rare occasion of his showing sternness. The talkative patient was a trial to him—and of whom is this not true? He used to have a very characteristic look when he escaped and I can remember his delight, after a particularly trying interview of the kind, when I quoted to him from "Kim": "The husbands of the talkative will have a great reward hereafter." However, he was rarely caught twice by the same person.

Of one class of his patients a word may be said—the doctors. He was consulted by many of the profession and especially in the latter years in Baltimore. This had grown to be a heavy burden, but one which he carried willingly. He never spared himself or thought of his own convenience when something was to be done for a physician or a member of a physician's family.

Of the attitude of patients towards Sir William much might be said. Perhaps the most striking characteristic was absolute confidence. There was the certainty that there would be no failure from lack of skill or interest on his part. His cheerfulness had much to do with this and the ability to give the

desire to fight to those who had lost courage and hope. He was always careful in giving an opinion to put matters simply, so that the chance of misunderstanding would be as slight as possible. In the consideration of what a patient should do he always had in mind what he could do. It was a good lesson to observe the care which he took to avoid saying anything in the hearing of a patient which might cause disturbance or increase anxiety. This was especially marked when the outlook was being discussed and seemed unfavorable. He never forgot to be sure that the patient was not within hearing. In all the giving of advice he was sparing of words and might be described as one of those "who have not the infirmity, but the virtue of taciturnity, and speak not out of the abundance, but the well-weighed thoughts of their hearts."

OSLER AND THE TUBERCULOSIS WORK OF THE HOSPITAL

BY LOUIS HAMMAN

Dr. Osler's interests were so universal that I fear I run grave risk of contradiction in saying that he showed a particular interest in tuberculosis. I came in contact very intimately with his enthusiasm for tuberculosis study and perhaps for this reason I exaggerate the position it held for him. Certainly he never tired of reiterating to students the importance of a thorough knowledge of the two great infectious diseases, tuberculosis and syphilis. From the beginning of his career as physician-in-chief to this hospital he studied the tuberculous patients with minute care. The first patient admitted to his medical service on May 16, 1889, was suffering from tuberculous peritonitis and one of the first clinical papers he published was upon this aspect of tuberculous disease. In 1903 I undertook at his request a study of all the cases of serous membrane tuberculosis that had been in the hospital up to that date and I noted that many of the histories have copious notes dictated by him.

That this interest in tuberculosis extended beyond the details of clinical observation is shown by the establishment in 1898 of a special fund for the study of tuberculosis, the initiative for its inauguration and much of the money coming from Dr. Osler himself. Dr. Charles D. Parfitt was appointed to conduct the work and a laboratory was equipped to afford him suitable opportunity for investigation. Unfortunately after an active year, which gave promise of substantial contributions to the study of tuberculosis, Dr. Parfitt was taken ill and the work was abandoned to be resumed some years later in the laboratory of the Phipps dispensary.

A further evidence of Dr. Osler's unfailing interest in tuberculosis, and his zeal for the dissemination of tuberculosis

knowledge amongst the students, is the foundation of the Laennec Society in 1900. This was the first society in this country and, as far as I know, the first in the world to devote itself to the study of tuberculosis. I remember clearly the first meeting of the society held in the fall of 1900 in the basement under Ward G. Dr. Osler presided, outlining the aims of the society and explaining the appropriateness of its name; a review of Laennec's life and work followed. Since this date the society has continued to hold regular meetings and it has proved itself an important and stimulating center of tuberculosis interest in the hospital. Unfortunately, there are no records of the early meetings of the society, but I remember Dr. Osler's unfailing attendance at all the meetings and his brilliant and stimulating discussions.

Shortly after the establishment of the Laennec Society Dr. Osler with his peculiar prescience of coming events inaugurated the home visiting of tuberculous patients registering in the dispensary. At first this work was undertaken by medical students, Blanche N. Epler, Adelaide Dutcher and Elizabeth H. Blauvelt successively giving it their service. The study of Miss Dutcher reported before the Laennec Society and published in the *Philadelphia Medical Journal*, December 1, 1900, is, I believe the first contribution in this country to lay the proper emphasis upon the importance of the home in the spread of tuberculosis. From this modest beginning grew the subsequent study and care and supervision of tuberculous patients in the dispensary. Dr. Osler soon enlisted the interest of Mr. Victor Bloede in the work and through his generous support a nurse was employed to visit and instruct patients in their homes. At the same time under his guidance the first steps were taken towards establishing a special clinic for the tuberculous. Although no separate rooms were available for this purpose, all tuberculous patients were put under the care of Dr. Herman Bruelle for detailed study and advice.

It would give a very incomplete impression of Dr. Osler's tuberculosis interests to omit reference to his activities outside of the hospital. He was always deeply concerned about the

social applications of medical knowledge and he played a prominent part in furthering and directing the awakening interest in the control of tuberculosis as a disease of the masses. For instance, he took a very active interest in the Tuberculosis Exposition held in January, 1904, under the auspices of the State Board of Health, the first exposition of the kind held in this country. Under his influence a remarkable collection of books on tuberculosis were displayed, illustrating the development of our knowledge of the disease from Hippocrates to modern times. Before the collection was dispersed Dr. Osler reviewed it with the medical students, illuminating each epoch with his surprising knowledge of the historical aspects of the subject.

In 1903 Mr. Henry Phipps learned of the work Dr. Osler was trying to do with such modest equipment and generously sent \$10,000 to support his endeavors. The check came quite unexpectedly and was the means for Dr. Osler to plan at once to materialize one of his dreams. With great enthusiasm he began to develop a special department for the study of tuberculosis and the care of tuberculous patients. Mr. Phipps' additional gift of over \$20,000 made it possible to remodel the old stable standing between the dispensary and pathological department buildings into a two-story structure with four rooms on each floor. The building was formally opened at a special meeting of the Lænnec Society on February 21, 1905, and the first patients were received on the first of March of the same year.

Dr. Osler left the hospital the year the tuberculosis dispensary was opened, but his interest in the department never ceased. Messages of encouragement and appreciation came at irregular intervals. Whenever an article appeared by a member of the staff, usually the first and always the dearest recognition was a postal or a brief note dashed off in his characteristic way. As the dispensary gradually grew into a recognized place in the medical clinic, at every turn of fortune there came his cheering congratulation. It is impossible for me to look back upon those years without the deepest emotion. I do not

know if Dr. Osler ever appreciated what these crisp, kindly messages flashed from abroad really meant for us, nor am I able adequately to express all we felt. Certainly this much is true, they were always the brightest ray of encouragement to our work, the most comforting reward that made us forget the long, dreary hours of labor and the discouragement and doubt that often assailed us.

Since the first few years the tuberculosis dispensary has grown steadily in importance. Further gifts from Mr. Phipps allowed the hospital to add to the building in 1908, doubling its capacity. Recently the generosity of Mr. Kenneth Dows has further improved the building and has put the research department of the dispensary upon a sound footing. The tuberculosis clinic is a very different department now from the modest dispensary arrangements of a physician without a room to work in and with no other equipment but his stethoscope. But this is the fruit that has grown from that tiny seed of interest and enthusiasm planted by Dr. Osler many years ago.

INFLUENCE ON THE RELATION OF MEDICINE IN CANADA AND THE UNITED STATES

BY THOMAS B. FUTCHER

Sir William Osler has done more than any other member of our profession to bring about cordial and intimate relationships between its members in the United States and Canada. A Canadian by birth, a graduate of McGill University, Canada's most distinguished medical representative, and a man with a most magnetic personality and great breadth of sympathies and interests, it is only natural that he should have exerted a most potent influence in encouraging close associations between the members of the profession in the two countries. Particularly was this the case after his call to Philadelphia in 1884, and to Baltimore in 1889. While this bond has naturally been more intimate between internists, his influence indirectly brought about a closer contact between the members of the other specialties.

Although Osler was graduated in medicine from McGill University, he was born at Tecumseh, Ontario, on July 12, 1849, and was educated at Trinity College, Toronto. Various members of his family, leaders in their respective professions, have resided in the latter city. As his reputation grew, it was only natural that his influence on the profession in the two older provinces of Canada should have been very great.

After his graduation from McGill in 1872, he spent the next two years in research work abroad, at University College, London, and at Berlin and Vienna, where he formed associations with such men as E. A. Schäfer, Virchow, Nothnagel and others. While abroad, he published in 1873 his researches on the blood platelets in which he established their corpuscular character. Upon his return to Montreal in 1874, he was appointed professor of the institutes of medicine, at McGill

University, a position he filled until 1884. During this period, he was brought into intimate association with his old teacher, Robert Palmer Howard, who was professor of medicine and dean of the medical faculty, and with those able clinicians, Ross and MacDonnell. His natural bent for research and investigation, had been further stimulated by his experiences abroad. A full appreciation of the importance of the microscope in medical research led, upon his return, to its more extensive adoption in the laboratories of McGill. While there, Osler laid the foundation of his keenness as a clinician, through his recognizing the great importance of following the fatal cases to the autopsy room, performing many of the necropsies himself. These investigations resulted in the publication of numerous important contributions to medical literature. Among these may be mentioned his paper in which mycotic aneurisms in association with ulcerative endocarditis were described for the first time, and his account of the ball-valve thrombus at the mitral orifice, which also was the first recorded case.

He was very much interested in comparative pathology, and performed many autopsies on lower animals with that keen veterinarian, Clements, who later went to Baltimore, where he died an untimely death from myocardial disease.

Many of Osler's students of this period are scattered throughout Canada and the United States, and they look back with pleasure and profit to the training and stimulus they received under him at McGill. One of the powerful influences he possesses was manifested, even in these early years, through his readiness to report interesting observations before local medical societies and provincial medical associations, and to encourage others to do likewise.

Osler's contributions to medical literature while at McGill, and his papers read before medical societies in the United States, naturally attracted a great deal of attention, and, when in 1884 the University of Pennsylvania was seeking the best trained man to fill the chair of professor of clinical medicine, Osler was its choice. While in Philadelphia he was brought

into close association with such men as Weir Mitchell, William Pepper, Tyson, Musser, Keen, Wilson and others. His influence on medicine in the United States was very marked even during this Philadelphia sojourn from 1884 to 1889. He was one of the original members of the Association of American Physicians, which was organized in 1886 with Francis A. Delafield as its first president. He always took an active interest in the annual meetings of the association, contributing numerous original papers and entering into the discussions. He was himself its president in 1895.

While at the University of Pennsylvania, Osler's contributions to medical literature were numerous and important. Much of his material for his monograph on the "Cerebral Palsies of Children," published in 1889, was gathered during this period. His experience at Blockley, that wonderful storehouse of clinical and pathological material, provided him with a mass of data later freely utilized in the preparation of his text-book.

In 1889, as the construction of The Johns Hopkins Hospital was nearing completion, the trustees of the university and hospital, seeking the best man to fill the chair of professor of medicine in the university, and the position as physician-in-chief to the hospital, at once thought of Osler, who was then considered the most brilliant clinician available. The offer was tendered and accepted, and he was on duty when the first patient was admitted to the hospital on May 10, 1889.

It was during his period of residence in Baltimore from 1889 to 1905 that Osler's influence on medicine in the United States and Canada was chiefly exerted. In making appointments to his hospital staff, graduates of medical schools in both the United States and Canada shared the privilege of working under him. Owing to his close affiliations with teachers in the Canadian medical schools, it was only natural that these men should be appealed to from time to time to supply assistants for its interne staff. His first resident physician was Lafleur, of McGill, who during his tenure collaborated with Councilman in the publication of their important monograph on

amœbic dysentery. Lafleur, as have other assistants, returned to Canada and carried with him to McGill and the Montreal General Hospital the stimulus and methods acquired while under Osler. Hewetson, also of McGill, soon followed Lafleur as an assistant. The unfortunate development of tuberculosis prevented him from pursuing what promised to be a brilliant career. Thayer, of Harvard, who now holds the chair in medicine on the whole-time basis, succeeded Lafleur as resident physician and served until 1901.

J. E. Graham, who was for many years professor of medicine at Toronto University, an excellent clinician and a man much beloved by his students, was a close personal friend of Osler. Through him several Toronto University graduates became assistants of the latter. Among these may be mentioned, Barker, Parsons, Thomas McCrae, the late John McCrae—the immortal composer of “In Flanders’ Fields,” Gwyn, and the writer. It may be of interest to note that all these, with one exception, were previously resident physicians during the summer months at the Robert Garrett Hospital for Children at Mt. Airy, Md., which was under the direction of Dr. Walter B. Platt. Barker, later succeeded Osler, as professor of medicine. The writer, and Thomas McCrae, in turn succeeded Thayer as resident physicians. W. G. MacCallum, now the professor of pathology at Johns Hopkins, although a medical graduate of this university, but a graduate in the academic department of the University of Toronto, was, after graduation, an assistant on Osler’s staff. Mention is made of these various Canadians to point out how Osler acted as a magnet to draw them from across the border to Baltimore, and to emphasize the fact that they have, through their “chief,” indirectly constituted an important link helping to keep up intimate associations between the profession on both sides of the line.

Following Thomas McCrae, the resident physicians, with the exception of B. A. Cohoe, a medical graduate of Toronto University, who served from June to September, 1908, have all been graduates of The Johns Hopkins Medical School. They have been in succession, Rufus I. Cole, Charles P. Emer-

son, Thomas R. Boggs, Frank J. Sladen, Paul W. Clough and the present occupant, Arthur L. Bloomfield. Cole was the only one of these who served as resident physician during Osler's occupancy of the chair of medicine, although Emerson and Boggs were assistant resident physicians under him before he left for Oxford, in 1905. Osler's ideals and influence have been disseminated by this group of resident physicians in the various fields in which their activities have been cast.

The first edition of Osler's "Principles and Practice of Medicine" appeared in 1892. This, and the subsequent seven editions, have been the standard text-book in medicine used by students and practitioners in both the United States and Canada. The influence of this work, with the fascinating and practical way in which the various diseases were treated, has been very great on the professions of both countries. The same can be said for the two editions of "Modern Medicine," of which he was chief editor, Thomas McCrae being associated with him.

Throughout Osler's professorship at Johns Hopkins, courses to post-graduates were given yearly. The medical school was not opened until 1893, and under-graduate instruction in medicine consequently did not begin until 1895, so that, up to that year, post-graduate instruction was the only teaching conducted in the medical wards. Osler's ward clinics and clinical lectures were attended by physicians from all parts of the United States and Canada. Members of the profession rubbed shoulders, gained invaluable clinical experience, and formed professional ties and friendships which have continued ever since.

Although domiciled in the United States, the Canadian profession always felt that it had a personal claim on Osler. His trips to Canada to see his family in Toronto, to consult with physicians, to read papers before societies in various parts of the Dominion, and often to spend his vacation on the lower St. Lawrence, enabled him to keep in close touch with the profession of his native land and to exert a strong influence on its members north of the border.

Almost as important a sphere of influence as The Johns Hopkins Hospital was Osler's home at 1 West Franklin Street, where physicians from both sides of the line were always welcome, and where they were ever made to feel at home by the "chief" and his gracious wife, now Lady Osler.

In 1905 Osler was called to Oxford to occupy the chair of Regius Professor of Medicine in that university. His interest in the medical profession of both countries has not a whit abated. The home of Sir William and Lady Osler, at 13 Norham Gardens, has been almost a daily rendezvous for the khaki-clad medical officers of the American and Canadian Expeditionary Forces during the last two years of the world's war.

OSLER AS A CITIZEN AND HIS RELATION TO THE TUBERCULOSIS CRUSADE IN MARYLAND

BY HENRY BARTON JACOBS

Though Osler like Nathan Smith, Austin Flint and Marion Sims and the philosophers of old is essentially a peripatetic, a medical nomad, yet wherever his feet may take him, there he establishes and identifies himself, interests himself in local conditions and undertakes the responsibilities of citizenship.

In the course of his wanderings Baltimore has had the privilege and the profit of halting his onward steps for fully sixteen years. Here he came in the vigor of his promising 40 years, trained and ready, not to say anxious, to jump into the life of his new surroundings. Many paths there are which lead to useful citizenship—Osler chose one peculiarly his own, and followed it consistently and unflinching, guided only by the unswerving conviction that whatever he might do to advance and improve conditions in the profession to which he was allied, in that way alone could he be of the greatest benefit, not only to those immediately under his tutelage or care, but to the city and to the nation at large. In his final address on leaving Baltimore he says "I have lived my life in my beloved profession. . . . I have never departed from my ambition to be first of all a servant to my brethren."

The advancement and improvement of medicine and service to his fellows, therefore, is the primary path of his endeavor. The wayside results of such a course pursued with intensity, with kindness, with sympathy, with laughter and joke, with good fellowship and hospitality, also with hard study and thought and work, diligently and persistently, year by year, are quite unusual, and lead as is only natural to wide friendships, extraordinary and general influence, both with individuals and with peoples.

Scarcely had he arrived in Baltimore in the spring of 1889 when he was asked by the officers of the State Medical Association, the old Medical and Chirurgical Faculty of Maryland, to deliver the oration at the annual meeting of the society to be held in April of that year. This invitation he accepted, choosing for his topic "The License to Practice." At this period it should be recalled there were in Baltimore no less than four or five medical schools with two-year courses of study for a degree to practice, and this degree the only license required. The argument Dr. Osler made in his address was so cogent, so direct, so illustrative of the evil conditions existing that immediate steps were taken by the leaders of the medical profession of the city and state to have prepared a legislative Bill for the appointment of medical examiners whose duty it should be to examine candidates, and to issue to the successful ones licenses to practice. This was Dr. Osler's first effort in Maryland toward the advancement and improvement of medicine, and coincidentally his first pronounced effort in good citizenship. As a farther resultant the University of Maryland decided to lengthen its course of medical study and to raise its standard. Moreover, the seed was growing so fast that in February, 1890, a meeting of representatives of all the medical schools of Baltimore decided to request delegates, from the medical schools of the country, to meet in Nashville with the idea of raising the standard of medical schools all over the United States. At this conference an agreement was reached for a three-year course and other reforms.

The Legislature of 1890 passed the Bill for the appointment of a board of medical examiners, a bill which looked to the betterment of medical practice in Maryland and to the general elimination of the numerous quacks and charlatans who had been permitted to carry on their trade in the state. Unfortunately Governor Jackson did not give his approval, and so two years had to go by before its final adoption by a new Legislature, and the signature of Governor Brown.

This was but the beginning of Dr. Osler's efforts for better state and municipal laws.

The almost unrestricted prevalence of typhoid fever in the United States, particularly in Baltimore, was a source of deep aggravation to him, and called for the use of all his powers of voice and pen to bring light into the darkness, that rational legislative measures might be inaugurated to restrict its incidence.

Baltimore at this time was without a general system for the disposal of its sewage. Backyard privy vaults were nearly universal. Dr. Osler was strongly of the belief that typhoid fever would be greatly reduced with the introduction of a proper and adequate sewerage system and a pure water supply. Note how vividly and forcefully he spoke at the meeting of the Maryland Public Health Association held on November 13, 1897, upon the subject of mortality from typhoid fever as related to these important city improvements:

The penalties of cruel neglect have been paid for 1896; the dole of victims for 1897 is nearly complete, the sacrifices will number again above 200. We cannot save the predestined ones of 1898, but what of the succeeding years? From which families shall the victims be selected? Who can say? This we can predict—they will be of the fairest of our sons and of our daughters; they will not be of the very young, or of the very old, but the youth in its bloom, the man in the early years of his vigor, the girl just wakening into full life, the young woman just joying in the happiness of her home. These will be offered to our Minotaur, these will be made to pass through the fire of the accursed Moloch. This, to our shame, we do with full knowledge, with an easy complacency that only long years of sinning can give.

Such writing as this is not only convincing, but is intensely moving, and must have played no small part in securing the desired end which happily came before he was to leave our city, a boon and a convenience to every member of the community, not to speak of the æsthetics of the new order when street and sidewalk gutters were no longer redolent with the morning's dishwashings.

Whatever gives promise of adding to the stock of medical knowledge immediately arouses Dr. Osler's enthusiasm.

Early he became interested in the amœbic theory of malaria. Well do I remember his coming to the Massachusetts General Hospital in Boston to demonstrate amœbæ in blood corpuscles to Dr. Fred Shattuck, then the young medical attendant to that hospital. This must have been in 1887 or 1888. No effort of his for good citizenship, or for the advancement of medicine was more remunerative than the stimulus he gave in this country to the solving of the problem of the causation, cure and prevention of malaria, a disease which had so sorely afflicted the people of states south of Mason and Dixon's line. Baltimore became the prime center for its study outside France and Italy, and Thayer's book written in The Johns Hopkins Hospital from Osler's clinic marks a salutary epoch in the history of this mosquito-borne infection.

Never was it out of Dr. Osler's mind that a better educated and more widely read medical profession made for better living conditions of the people, greater civic comfort and diminished suffering and death, so in all ways possible he encouraged students and practitioners alike to greater learning. To this end he insisted upon greater comradeship and larger attendance upon medical societies where experience could be interchanged and interesting cases seen and discussed; he also insisted upon enlarged library facilities, and adequate supplies of current medical magazines and standard books. Under his inspiration and leadership the old state society of Maryland took on a new life, and its library so long mouldering on its shelves sprang into usefulness. To him more than to any single man does the medical profession of Maryland owe its present faculty building with its large and growing library—a library in which he took no less interest than in his own. To this extent, then, we must think of him as contributing enormously to the welfare of the community through an enlightened profession influencing public opinion in matters pertaining to health, sanitation, and general hygiene.

Not less than his trenchant writing and speaking was Dr. Osler's own personality of influence upon men and the com-

munity; so strikingly straightforward, so genial even convivial, so playful in youthful spirit, so enthusiastic in helpfulness and sympathy, so painstaking and so wise, he soon had both patients and acquaintances alike in an attitude of devotion, almost, I might say, of adoration. And although he took no official part in the civic affairs of the city, he gained through his association in the medical profession, by reason of his acknowledged eminence in that profession, and through his friends and acquaintances, a leadership in the affairs of the city and state which was most powerful and beneficent even though it was exercised in an indirect way.

From the moment when Koch discovered the germ of tuberculosis in 1882, Dr. Osler has never lost interest in this disease. He dwelt upon it in his teaching and he insisted that his students should be familiar with it. When in 1892 the use of tuberculin was thought to be specific, he was among the first in this country in giving it a thorough trial in the wards of the hospital. For greater encouragement to the study of the disease, which so long has been such a fatal enemy of mankind, he suggested and carried out the establishment of a society whose single purpose should be the consideration of the history and the various phases, clinical and pathological, of tuberculosis, and this society he named, after the great French student of tuberculosis and discoverer of the stethoscope—*The Laennec*.

On November 14, 1899, Dr. Osler read an important paper on the "Home Treatment of Pulmonary Tuberculosis," at the semi-annual meeting of the faculty at Westminster, and on the same day and in the same place Dr. Charles S. Millet of E. Bridgewater, Mass., described his outdoor sleeping porches for tuberculous patients. This was the first public discussion of the value of unlimited night air in the cure of consumption and marks a new epoch in the method of treatment. Incidentally I may remark that at this same meeting mention was first made by Dr. Joseph E. Gichner of the need and desirability of a State Sanatorium in Maryland.

On April 19, 1901, at the invitation of Dr. Osler, Dr. Lawrence F. Flick of Philadelphia came to Baltimore and before the Clinical Society delivered an address on the "Registration of Tuberculosis," saying that Philadelphia and New York had already inaugurated such a provision. Dr. Osler urged that Maryland should do likewise, as in this way the location of cases could be known to the health authorities and such steps be taken as would be of advantage to the patient and to the community.

By the end of the year 1901 there had arisen great interest in the tuberculosis movement, and it was proposed that the Legislature of January, 1902, should pass new and vital laws which should be of benefit to the whole people. To this end a big meeting in McCoy Hall was proposed under the auspices of the Maryland Public Health Association, the Medical and Chirurgical Faculty of Maryland and the Laennec Society. Dr. Osler's "fiery" speech thrilled the audience:

Mr. Chairman and my long suffering, patient, inert fellow-citizens: . . . now what is our condition in this city, and what are we doing for the 10,000 consumptives who are living today in our midst? We are doing, Mr. Mayor and fellow-citizens, not one solitary thing that a modern civilized community should do. Through the kindness of a couple of ladies—God bless them!—I have been enabled in the past three or four years to have two of the medical students of The Johns Hopkins University visit every case of pulmonary consumption that has applied for admission to the dispensary of our hospital, and I tell you now that the story those students brought back is a disgrace to us as a city of 500,000 inhabitants. It is a story of dire desolation, want and helplessness, and of hopeless imbecility in everything that should be in our civic relation to the care of this disease.

He then argues for registration, disinfection after death or removal, a State Sanatorium for curable cases and a hospital for advanced cases, a sewerage system and a hospital for contagious diseases. This address and others made the same evening had an effect, to wit: The Legislature of 1902 created a Tuberculosis Commission, the Governor naming Dr. Thayer as its chairman.

All that is progressive or worth while in the Tuberculosis Crusade in Maryland followed thereafter; the commission with its advisors taking the initiative in beneficial measures. At Dr. John S. Fulton's suggestion the commission decided upon a tuberculosis exposition in January, 1904, which should show graphically and practically the general incidence of tuberculosis, its methods of prevention and cure, its ætiology and pathology, its relations to social and economic problems, and a history of its study from the time of Hippocrates. Such an exposition for any single disease had never before been attempted. Lectures and demonstrations were given and the attendance not only from Baltimore but from the counties and from outside the state was remarkable. The public was intensely interested and the exposition "demonstrated that it is both expedient and practicable to admit the general public to free participation in the scientific knowledge of tuberculosis." (Editorial, Md. Med. Jour.)

Dr. Osler was the moving spirit in this most successful undertaking and it was he who invited the distinguished speakers who were heard. As a result of this exposition, the Legislature of 1904 passed laws requiring:

- (1) Registration of tuberculosis in Maryland, and
- (2) Providing means and measures to be administered by the State Board of Health for the domestic prophylaxis of consumptives.

Growing out of this exposition, too, was the formation, following the suggestion of Dr. S. A. Knopf, of the National Association for the Study and Prevention of Tuberculosis. In this enterprise Dr. Osler had a leading part. In its organization he was made vice-president, and since his residence in England has been continued one of the two honorary vice-presidents, Mr. Roosevelt being the second.

In December, 1904, the Maryland Association for the Prevention and Cure of Tuberculosis was formed and again to this local movement Dr. Osler lent his interest and enthusiasm. His last effort for the tuberculosis cause in Baltimore was to induce Mr. Phipps to give the sum of \$10,000 for a

Tuberculosis Dispensary at The Johns Hopkins Hospital. This was opened with addresses on February 21, 1905, Mr. Phipps being present.

In reviewing thus briefly the activities of Sir William Osler during his sixteen years in Baltimore, I realize how inadequately I have been able to convey any idea of his great work and influence, or the universal esteem, love and honor in which he was held not only by the people of Maryland, but by the country at large. I cannot believe that any man ever left our shores for a new work elsewhere more deeply and sincerely missed by a larger army of friends. His address of farewell delivered before the Medical and Chirurgical Faculty of Maryland April 27, 1905, on "Unity, Peace and Concord" typifies his attitude to all his fellows both professional and lay. In closing he sums up this relationship in the one word which he leaves as his benediction—CHARITY.

OSLER'S INFLUENCE ON OTHER MEDICAL SCHOOLS IN BALTIMORE

HIS RELATION TO THE MEDICAL PROFESSION

BY EDWARD N. BRUSH

To estimate correctly Osler's influence upon other medical schools and upon professional thought and conduct would require an inquiry into the methods of medical teaching in vogue more than a quarter of a century ago, and into the social and professional relations of the physicians of the city and state toward each other.

At about the time of Osler's arrival in Baltimore to assume the duties of physician-in-chief to The Johns Hopkins Hospital there was a movement on foot to improve and enlarge the medical curriculum. The University of Maryland in 1889 announced that after 1891 a compulsory three-year course would be required in the medical department with a preliminary examination in English.

In March, 1890, a call was issued by the medical staff of The Johns Hopkins Hospital, and the medical faculties of The University of Maryland, The College of Physicians and Surgeons, The Baltimore Medical College, The Baltimore University and The Woman's Medical College for the organization of a medical college association with a view to the co-operation of all medical teaching bodies in bringing about a three-year graded course, written and oral examinations, a preliminary examination in English and laboratory instruction in chemistry, histology and pathology.

At the meeting of the Medical and Chirurgical Faculty in 1889 the annual address was given by Dr. Osler, who took for his theme "The License to Practice," and undoubtedly this address gave an impetus to a movement, already receiving support, for higher medical education and a better qualified student body.

My own connection with medical teaching in Baltimore did not begin until eight years subsequent to this date, but I realized before that period, and have had occasion to know since, the great interest which Osler took in promoting reforms in medical teaching not only here, but in the country at large, the great and lasting influence of his advice, and above all, his example as a teacher.

Trained as he had been as a laboratory man, realizing to the fullest extent the results which flowed from his laboratory studies and their bearing upon the practical work of the hospital ward and the consulting room, as well as in the lecture hall, he urged the establishment of laboratories.

Thoroughly equipped laboratories, in charge of men thoroughly equipped as teachers and investigators, is the most pressing want to-day in the medical schools of this country.

The hospital was, from his point of view, a college—a place of teaching, the most essential part of the machinery of a medical school.

The systematic use of the resources of the hospital which he inaugurated and which he urged upon other communities and described in detail in his address before the New York Academy of Medicine in 1903 found in the minds of the more progressive teachers of the Baltimore schools a ready acceptance.

For those working in my own special field, it is gratifying to believe that it was a few words spoken in his farewell address at the university, February 22, 1905, which gave an impetus that resulted in the establishment of a psychiatric clinic at the hospital.

From his address at the dedication of the Wistar Institute of Anatomy and Biology of the University of Pennsylvania, 1894, I take the following:

What, after all, is education but a subtle, slowly effected change, due to the action upon us of the externals; of the written record of great minds of all ages, of the beautiful and harmonious surroundings of nature and art, and of the lives good or ill of our fellows—these alone educate us, these alone mould the developing minds.

The whole career of Osler in Baltimore, his life here as a teacher, hospital physician, consultant and citizen was devoted to the better teaching of medicine, to better ideals in education; and from his life, from his example, proceeded influences which not only moulded developing minds, but stimulated all who had a real ambition, to teach and, in teaching, to learn also, and develop.

To emphasize sufficiently his influence upon medical education is most difficult. One of his constant pleas for other schools was for larger clinical advantages, and better use of those already provided. In 1897 in his address on Internal Medicine as a Vocation, before the New York Academy of Medicine, he says:

To-day the serious problem confronts the professors in many of our schools—how to teach practical medicine to large classes; how to give them protracted and systematic ward instruction. I know of no teacher in the country who controls enough clinical material for the instruction of classes, say of 200 men, during the third and fourth year.

Never a controversialist, none the less did he bear a large share in the controversies of 30 or more years ago, which preceded and eventually brought about the changes in the methods of medical education which have taken place since that time. His influence was exerted not in argument or controversy, but in the force of example, by the way in which he lived his ideals and induced others to share them with him.

He studied "to be quiet" and do his "own business," "to walk honestly toward them that are without" and one of his chief pleasures was "to work among [us] as a friend sharing actively in [our] manifold labors."

Some years ago I had occasion to apply to him a quotation from the presidential address of the late Dr. Charles M. Ellis before the Medical and Chirurgical Faculty in 1898. These words seem to me particularly appropriate to Dr. Osler:

Many [doctors] by reason of natural endowments and acquired fitness elevate their lives to a professional plane on which it is possible for an intellectual life to develop; and on which it does develop, not only to individual sufficiency, but to public usefulness

and a public influence, that on the one hand meets and supplies public emergencies and, on the other, largely directs and controls public thought and movement.

These words from what I know of the intimate and friendly relations between the two men may well have been brought to the mind of Dr. Ellis by his knowledge not only of the intellectual life of Dr. Osler, but by his appreciation of the controlling influence of his mind upon public thought and movement, particularly in professional circles.

Very early in his residence in Baltimore, notwithstanding that he "studied to be quiet," he became a by no means unimportant factor in the social life of Baltimore physicians.

He so regulated his work that he always had a certain amount of time to give to his friends in social converse, or in conference over the more serious things of their everyday lives and work.

He appreciated the difficulties and perplexities which surrounded the lives of many of his professional brethren and many a burden has been made lighter, many dark hours brightened, by his wise and thoughtful advice and his cheering optimism.

More than one doctor laboring amid discouragement and the indifference of open opposition of his fellow-citizens, whose lives he was manfully trying to make more tolerable, whose surroundings he was endeavoring to make more healthful, has found to his surprise that Osler had learned of what he supposed was unknown beyond the bounds of his own community, and has received from him words of cheer and commendation, which were a powerful incentive to renewed effort, just when all the uses of the world appeared to him "weary, stale, flat and unprofitable."

His farewell address "Unity, Peace and Concord" is an eloquent recital of his consuming eagerness to be "a servant" to his brethren to do all in his "power to help them."

He strove always to live in unity, peace and concord with his fellows. He strove with none—not that none were worth the strife, but because of a deep conviction of the hatefulness

of strife. Those worth the strife he won by other and gentler means, and bound them to him by the everlasting chains of friendship.

In 1881 there was formed in Baltimore the Baltimore Monthly Medical Reunion. It met at the home of members in turn and around the dinner table and at the fireside many friendships were made and consolidated. Very soon after coming to Baltimore, Dr. Osler became a member of the Reunion and always when he was present at the monthly gatherings, as with The McGregor, where Osler sat was "the head of the table," the center of conversation, the focus of wit and wisdom.

As in the past, so in the future in all that makes for truth and righteousness, in all that holds forth high ideals, in all that encourages culture and all the virtues of the Christian gentleman and the ideal physician the name of Osler will be one to conjure with. From time to time, as on the present occasion, his friends for many years, let us hope, will send him greetings across the sea. He has given us the master word and with that in our hearts all things are possible. Have we not seen it exemplified in his life and character?

ON A PORTRAIT OF SIR WILLIAM OSLER, BART.

William the Fowler, Guillaume l'Oiseleur!
I love to call him thus and when I scan
The counterfeit presentment of the man,
I feel his net, I hear his arrows whir.
Make at the homely surname no demur,
Nor on a nomination lay a ban
With which a line of sovran lords began,
Henry the Fowler was first Emperor.

Asclepius was Apollo's chosen son.
But to that son he never lent his bow,
Nor did Hephaestus teach to forge his net;
Both secrets hath Imperial Osler won.
His winged words straight to their quarry go.
All hearts are holden by his meshes yet.

BASIL L. GILDERSLEEVE



Painted by Seymour Thomas, 1908

SIR WILLIAM OSLER, BART.

INFLUENCE IN BUILDING UP THE MEDICAL AND CHIRURGICAL FACULTY

BY HIRAM WOODS

“Influence in Building Up the Medical and Chirurgical Faculty” is a theme one might approach from numerous paths. So great was Dr. Osler’s influence, in so many directions did it work, so broad was his conception of the possibilities for good in the organization, so keen his appreciation of the obstacles to progress, some traditional, some personal, that the many-sided subject is bound to appeal to his friends in different ways. Adequate organization of the library; revelation to the younger man of what the library even in those days afforded; provision for the purchase of new books—these are themes which have been selected for special review and will be presented by others. I shall try to give some idea of his work from another standpoint—that of personal influence. Yet, with the selection of this special topic, I am aware that I shall speak from my own personal impressions and memory and may fail utterly to express the feelings of another just as indebted to Dr. Osler as am I.

I have asked myself, What were Dr. Osler’s basic thoughts and principle in his work for, and devotion to, the State Medical Society? He held the most influential position medicine in Baltimore could give; he had at command greater powers than any one medical man had ever possessed in the city; his teaching and organization duties in the new medical school were exacting enough to take all his time, and yet he went to work on the state society in a way which soon gathered recruits happy to work under—not his direction—but his mind and heart. What led him to do it? I think he felt that the biggest medical foundation Baltimore had ever had ought to benefit the existing profession. He thought there should be a high valuation of the profession itself; realization of the

obligation of self-improvement; a breaking-down of the "middle wall of partition" between those, who, by a connection with the new school, seemed to possess an advantage, more or less adventitious, and those who found, or thought they did, a definite obstacle to practice in the new Foundation. He felt the meaning of "Unity." He told us of this—at least in words—only on the eve of his departure. And yet he had told us about it previously in a better way. Go over the papers he brought to the faculty meetings and the smaller gatherings of the local society and you will, if I mistake not, see that he presented the problems of disease, cause, prevention and cure, as the same for the hard-worked country doctor, with little time to read, and the man with hospital and laboratory advantages, plus trained nurses and competent assistants. But here the roads parted, in a sense. The practitioner brought his experiences and difficulties. Modern methods of investigation were not at his command. Dr. Osler felt that the man with greater advantages should, in the first place, qualify himself to understand the point of view of his less fortunately placed colleague, and then, from his greater advantages, make up the deficiency.

Sometimes a chance thing makes a life-long impression, and such an occurrence has come back to me time and again. At a society meeting typhoid fever was the topic. I believe I am quoting accurately: "Typhoid fever, the monster that destroys the best of our sons and claims the fairest of our daughters; are we to let it continue or stop it?" And then followed a clear, scientific and yet almost a domestic demonstration of preventive measures which could be taken home and taught to those who did not know, but who, if they knew, might save their own and others' lives. This, I believe, was Dr. Osler's motive force: aim to realize the other man's point of views and his needs, and to reach these needs if he could. But if such was the self-imposed task, success could come from no wiser-than-thou attitude. There had to be a comradeship; not the assumed, patronizing variety, but the sort that cements the minds and hearts of men earnest after the same thing—

knowledge. How many of us have met him browsing around in the library, and soon found ourselves just talking? Yet from that talk we afterwards found we had gleaned a great deal. It was from one such talk that I took away definite impressions about the evils of narrow specialism. Again, after we got to know him better, we would sometimes find him in deep conversation with a beginner in medicine, or a man we hardly knew, and we shied off. It was perfectly clear what he was doing. But the comradeship was the real thing; there was nothing professorial about it. This comradeship extended beyond the confines of men who were active students for their own good or those who needed prodding. It went after and reached those who had something to give, and who did not know how to give it; maybe they did not know they had it. There are matters of importance to the faculty and profession, bearing others' names, which would never have come into being without William Osler's realization of their importance and pointing out the way to achievement. I cannot speak more definitely; but men familiar with the faculty's history will know. This comradeship went farther. It reached those who for one reason or another had met with little or no success. It made them feel that in spite of what might be termed failure, honesty of purpose gave standing to a man in medicine and brought him into unity with his brothers upon whom fortune had smiled more kindly.

Work for the library, teaching its value by precept and example, demonstrating the unity of the medical profession and the spirit of comradeship soon won the esteem, confidence and affection of men throughout our state. This feeling was, possibly, best expressed in a telegram sent to Dr. Osler's mother in April, 1905, when he was about to leave Baltimore. The telegram was sent by vote of the faculty at its annual meeting and signed by the president, Samuel T. Earle. It reads:

The greetings of the Medical and Chirurgical Faculty of Maryland to Mrs. Osler, asking her to share their sentiments in taking leave of William Osler, congratulating Mrs. Osler first on the

distinguished career of her son, but most on the innate qualities which have endeared him to his associates in Maryland.

A few days later the following reply was received :

Mrs. Osler, who is unable from her great age to write, asked me to express her heartfelt thanks to you for the very kind telegram of greeting sent through you from the Medical and Chirurgical Faculty of Maryland, and to say that the receipt of the message gave her the greatest pleasure, more especially in the expression of affection and appreciation called forth by the personal qualities of her son, since these are, in her eyes, more precious than all his honors.

She knows that it must be hard for him to sever his connection with such kind *confrères*, and she is sure that the friendships he has made during his residence in the States will be among his most cherished memories. I am, sir, yours sincerely,

JEANNETTE OSLER.

One who had thrown his heart and soul into an enterprise would be keenly disappointed if his work fell through in later years. There seems no danger of this while there survive the men who came under Dr. Osler's leadership. The funds obtained through his influence, and others, which have come since, because of the spirit he put into the organization, are keeping the faculty up to date. But these material things, important as they are, would fail in their purpose, unless something else lived and permeated the faculty's life. I mean the mental attitude which I have tried to present. It is interesting to go over a book in a public library even if one owns a copy himself. The latter he feels free to mark, but it demands a certain amount of bad taste to mark passages in a book which does not belong to you, However, this bad taste does exist here and there and sometimes it may not be without its advantages. It shows the other fellow's thought. Recently I picked up "Aequanimitas" at the library and opened by chance at the delightful essay "Teacher and Student." That a library-worn book like this should open right there is not without significance. It means that there are youngsters coming on now who are getting from the printed page some of the things others got from personal intercourse. This passage is marked with a heavy lead pencil :

The measure of value of a nation to the world is neither the bushel nor the barrel, but *mind*;—Wheat and pork, though useful and necessary, are but dross in comparison with those intellectual products which alone are imperishable.

In "Unity, Peace and Concord," written in 1905, 13 years after the essay to which allusion has been made, Dr. Osler speaks of "the petition in the Litany in which we pray that to the nations may be given unity, peace and concord." Then follows this, which I do not attempt to summarize:

Century after century from the altars of Christendom this most beautiful of all prayers has arisen from lips of men and women, from the loyal souls who have refused to recognize its hopelessness, with the war-drums ever sounding in their ears. The desire for unity, the wish for peace, the longing for concord, deeply implanted in the human heart, have stirred the most powerful emotions of the race, and have been responsible for some of its noblest actions. It is but a sentiment, you may say, but is not the world ruled by feeling and by passion? As with the nations at large, so with the nation in particular; as with people, so with individuals, and as with our profession, so with its members, this fine old prayer for unity, peace and concord, if in our hearts as well as on our lips, may help us to realize its aspirations.

Now, 14 years later, with the world still "refusing" to recognize its "hopelessness" and struggling toward the realization of permanent unity, peace and concord, these words seem almost prophetic. From the "nations at large" through successive steps, this great principle of unity, peace and concord reaches the medical profession and "individual" doctor. His comprehension and use of it will depend on his relative valuation of the "barrel and bushel" and "mind." Dr. Osler's method of upbuilding the faculty differed from others' in that he aimed to increase the individual's receptivity for what the faculty had to offer. So long as the faculty sees its responsibility to offer only the best; so long as its members appreciate the nature of what is offered and remember that

profit is a question of their own hearts and minds, there will be no danger of deterioration; but both are necessary. While we are congratulating Dr. Osler and gratefully acknowledging our debt to him, let us not forget what his example taught; for it is only thus that we can keep what he had so large a share in giving us.

OSLER AND THE BOOK AND JOURNAL CLUB

BY J. A. CHATARD

Of all the varied activities and interests that occupied Sir William Osler, while in Baltimore, possibly none appealed to him personally, and to the little group of supporters that he gathered about him in the early days of 1896, more than the idea of getting together a few of the men of the profession at periodic times for the discussion of old books on medical subjects and the presentation of papers on the historical side of medicine. At the same time the members, by their interest in the work and by the voluntary subscriptions offered, helped much in the improvement of the library of the Medical and Chirurgical Faculty by the purchase of new books and journals.

In these early 90's the faculty was in a quiescent mood with few regular meetings at which, for the most part, only routine business was transacted. For lack of funds the library was much neglected and the book and journal files were far from complete. This Dr. Osler saw and at once put his great store of knowledge and earnestness, at the disposal of the members of the faculty, with the result that the Book and Journal Club was soon in a flourishing condition.

Those of us who went to the early meetings can still remember the enthusiasm of Dr. Osler in his presentation of rare old historical medical subjects or in the enlightening discussion that he gave following someone else's paper. After some time he would then show some of the fine old books illustrating the talk, these books not infrequently coming from his own medical library.

But for one man's enthusiasm and zeal we might have missed so many interesting talks on the "Hippocratic Writings," the "Plague of 1630 in Milan," "Harvey as an Embryologist," "Some Diseases Bearing the Names of Saints," "The Resurrectionists of London and Edinburgh," "The

Books of Vesalius," "Assyrian Medicine," and last but not least, our old friend Sir Thomas Browne. These and so many other historical subjects he was instrumental in bringing before us, leading us on to browse among the old masters and find there the very things we may be looking for to-day.

During his presidency, the Book and Journal Club collected over five thousand dollars by voluntary subscription and in addition to paying for the binding of many journals, we were able to purchase annually about 270 books and subscribe to 56 journals. To those of us who know how crippled the finances of the faculty were at that time, and how little was available for the library fund, this money from the Book and Journal Club was a treasure indeed.

To the older members of the faculty his work and zeal for their interests was of wonderful help and assistance, and his close association with them will always be looked back on with the deepest and most lasting pleasure. To the younger, some of whom are now among the older members of the faculty, who knew him at that time and worshipped from afar, his example should be a help to be better students and workers. To the youngest members of the faculty, who, alas, knew him not, it becomes a duty to emulate his efforts in historical study and so join in the company of those who can find that all is not dry and musty in the old discolored books upon our shelves. It is only by thus fostering and helping along a search for old truths that the newer ones assume a more crystalline appearance and we are better able to value them in the light of advancing thought.

LIBRARY
OF THE MEDICAL AND CHIRURGICAL FACULTY
OF THE STATE OF MARYLAND



PURCHASED THROUGH THE
WILLIAM OSLER
TESTIMONIAL FUND

FOR THE ADVANCEMENT OF MEDICINE

OSLER'S INFLUENCE ON THE LIBRARY OF THE
MEDICAL AND CHIRURGICAL FACULTY
OF THE STATE OF MARYLAND

BY MARCIA C. NOYES, LIBRARIAN

Associations of Dr. Osler are so interwoven with the library of the Medical and Chirurgical Faculty that what we have become is, in reality, but an expression of what we felt he would have us be.

The name of Osler is writ large in the history of the library from the time of his first connection with it in 1890; and the impression made by his character on the lives of those with whom he came in contact has been a powerful influence for the betterment of medicine in Maryland and in the upbuilding of the state society and its library.

Dr. Osler was elected a member of our Library Committee in 1892 in which year the committee reported difficulties, financial and otherwise, in the management of this "most valued and noble inheritance." Although never serving as chairman, that he lent himself to the surmounting of these difficulties we know, and what was accomplished between 1892 and 1905, his tenure of office on the Library Committee, is given, in part, herewith.* From a collection of a few thousand old books in 1892, it grew to 14,590 volumes in 1905, and has grown steadily ever since.

The library, which dates from 1830, had been partially revived in 1881 and was housed in rooms in the basement of the old Maryland Historical Society in 1885; but it was Dr. Osler's interest which brought about its renaissance and the purchase of and its removal to the home at 847 N. Eutaw

* When abroad for his annual outing, Dr. Osler always had the needs of our Library in mind, and we owe many of its greatest treasures to his interest. Some of these were a direct gift from him, and others selected for purchase on the Frick Fund.

Street (Hamilton Terrace) in 1895. After a year without proper supervision it was owing to Dr. Osler, who personally saw to it, that the Library Committee employed a trained worker and the present librarian took charge. To him we owe the founding of the Charles Frick section of the library, in 1896, which was made possible by the generosity of Messrs. William F. and Frank Frick; and the establishment of the Book and Journal Club at about the same time. These funds gave the library a definite income for the first time in its history.

Dr. Osler was president of the Faculty in 1896-1897, and in his presidential address, April, 1897, in outlining the purpose of the Book and Journal Club, and of the Frick memorial said: "I envy Charles Frick the good fortune to go down to the future generations in this Faculty with his name linked to an important section of our library. Posthumously and by proxy, as it were, thus to carry on, though dead, the work he was interested in while living, is the nearest approach a man can make to cheating the great enemy, and in Charles Frick's case it is in a measure a compensation for the untimeliness of his taking off." He also spoke of the approaching centennial as follows: "We can try in the centennial year to obtain a proper endowment for the Faculty from our friends among the citizens. We shall need a larger hall, more in keeping with the rank and work of the profession of this city—quarters as complete as our brethren enjoy in Philadelphia and New York. And an endowment yielding a few thousand dollars annually is absolutely essential for the proper development of the library." At the centennial of the Faculty in 1899 he gave the first thousand dollars toward such an endowment fund; and it may safely be said that it was principally due to his influence that the Charles M. Ellis bequest was made in 1910.

It was because of the widespread desire to honor Dr. Osler that the present home of the library, at 1211 Cathedral Street, became a fact in 1909; and because of a further expression of this desire that the Osler Testimonial Fund for the purchase,

in his name, of books on medicine was presented to us in 1917. It is singularly fitting that his name should be linked for all time with that of the Medical and Chirurgical Faculty and its library, for he delighted so keenly in the phrasing of the old title—the chirurgical, so hard for the uninitiated to pronounce—and in the usage of the word faculty instead of society. The development of the library, to its fullest extent, interested him beyond measure, for he was not only a lover, but a user of books, and he insisted that his students should learn the art. The familiar slip bearing his reference was presented almost daily by some one of them, and our reading room on Saturday afternoons became a rendezvous for students and physicians who thought to meet him there to seek his advice. In those days, the pausing of a hansom at the door, if followed immediately by a cheery whistle, presaged his advent to the initiated. Hardly a Saturday passed without Dr. Osler coming to scan the shelves containing the new journals and to browse among the books to be found in the Charles Frick Reading Room.

Akin to his interest in books is his interest in medical libraries in general, and he was intimately familiar with and always a welcome guest at the library of the Surgeon General's Office, the College of Physicians of Philadelphia, the New York Academy of Medicine, the Boston Medical Library and the library at McGill University, as well as the libraries in Baltimore and many of the smaller medical libraries elsewhere, some of which he fostered. He was not only familiar with the books in these collections, but he knew intimately the catalogers and workers who do not usually come in contact with the readers, as well as the librarians in charge.

This interest found expression in the founding, in conjunction with Dr. George M. Gould, of Philadelphia, of the Medical Library Association in 1898. Owing to his generosity our library was a member from the beginning, and has become an influence in the medical world because of this membership and our connection with the exchange of the association.

No one man has so left his imprint on the libraries of two continents as has Sir WILLIAM OSLER, and a quotation from his address "Books and Men" delivered in 1901 at the opening of the new building of the Boston Medical Library, at 8 The Fenway, sums up what his example has meant to this library and Faculty:

It is hard for me to speak of the value of libraries in terms which would not seem exaggerated. Books have been my delight these thirty years, and from them I have received incalculable benefits. . . . For the teacher and the worker a great library such as this is indispensable. They must know the world's best work and know it at once. . . . For the general practitioner a well-used library is one of the few correctives of the premature senility which is so apt to overtake him. Self-centered, self-taught, he leads a solitary life, and unless his everyday experience is controlled by careful reading or by the attrition of a medical society it soon ceases to be of the slightest value and becomes a mere accretion of isolated facts, without correlation.



1901.



1913.

SOME EARLY REMINISCENCES OF WILLIAM OSLER

BY HENRY M. HURD

In September, 1883, while on a vacation trip with a friend, I stopped at Kingston, Ontario, and found myself in a busy throng of physicians in attendance upon the Canadian Medical Association in annual session there. The physicians were diligent in their attendance upon the meetings of the association, proud of their mutual calling and eager to advance it. The secretary of the organization, and one of the leading spirits, was Dr. Osler, a resident of Montreal, a young man of 34 years, who then, as always, appeared younger. He knew in person every physician present and was easily the guiding force in the association. He participated freely in the discussions which followed the reading of papers and did not hesitate to express his mind freely and frankly on all important questions. In the meetings there were the usual differences of opinion between the rank and file of the profession and the members of the medical examining board and verbal encounters sometimes took place between many men of different minds. Osler spoke boldly and without reserve and had an opinion upon all matters, but never seemed to excite ill feeling or lasting resentment on the part of those who differed with him. He was an excellent secretary and carefully watched the progress of the special work of the meetings. He was spare in figure, with a sharp, piercing eye, and although of sallow complexion, was vigorous and in excellent health. He was neatly and quietly, but carefully dressed and in manner and bearing displayed the characteristics which I later learned to recognize and appreciate as peculiar to him. One circumstance in the meeting attracted my attention in a special way; a prominent member read a paper entitled "The Conduct of Medical Men Towards Each Other and Towards Each Others"

Patients," which displayed great wrong-headedness and perversity of feeling in reference to the relations of physicians to each other in the matter of consultations over very ill patients. He held that a physician was justified, when called in consultation, in getting control of his brother practitioner's patient and concluded by saying: "Take all the cases you can get and keep them if you can without reference to the rights of any other attending physician." He also deemed it justifiable to report one's cases of operations or extraordinary cures in the newspapers and inquired, "Why should not medical men report their cases as well as a lawyer his speeches or a clergyman his sermons?" When he had concluded reading his paper he was called sharply to order by several members and referred to the Code of Ethics which existed in Canada to govern the relations of physicians to each other. Whereupon the offender announced that he had never seen any such code and that it had no meaning to him. Dr. Osler sprang to his feet and drew from his pocket a pamphlet copy of the Code of Ethics which he waved about his head and in a loud, clear voice announced that he took great pleasure in supplying a copy to his innocent and untutored friend and was glad to learn that he had "sinned unwittingly through ignorance."

In 1889, when I came to Baltimore, I found Dr. Osler in temporary charge of The Johns Hopkins Hospital, which had been open in part for a few weeks. He lived at the hospital and guided its work in company with Dr. Halsted and such members of the early staff as Lafleur, Brockway, Clarke and others. I remember on my first visit while walking along Broadway in company with Osler and President Gilman, the day being very hot, the latter, as usual, had an umbrella which he used to protect himself against the rays of the sun. He invited Osler to walk with him, who declined saying, "The chill of nearly 40 Canadian winters is still in my veins and I do not need any such shelter."

He was a delightful companion with children and took much pleasure in conversing with them and even mystifying them by detailing remarkable personal experiences and sometimes

tragedies. Once he invited two young girls to a luncheon at his house on Monument Street, where his niece, now Mrs. Abbott, kept house for him. He came late to luncheon and explained his delay by the fact that he had been caught in a down-pour of rain when crossing Monument Square which had produced a flood sweeping him off his feet; that he had escaped only after vigorous swimming and had barely saved himself by grasping the shaft of the Washington Monument with both arms. A more harrowing tale was that of the loss of a young friend by falling from his row-boat into the St. Lawrence River. He explained that he might have rescued her had he not resolved never to act hastily and without due consideration. He had accordingly tossed up a coin to determine what his action should be. It fell adversely and he rowed ashore alone weeping bitterly! Fancy the difficulty of duly impressing high moral precepts upon the young in the light of such a confusing example. Children delighted in his presence and were charmed by him, but very naturally were always uncertain as to the logical nature of his conclusions and equally puzzled by his apparent indifference to conventional conceptions of duty and obligation. There was also in his attitude towards pupil nurses a similar light-hearted irresponsibility which marked some portion of two addresses to nurses to which reference is made later. It is possible, however, to perceive that under the cloak of these apparent trivialities there lurked a seriousness of purpose and a keen desire to point a painful moral in a kindly way. With children, however, it was simply an expression of his ample imagination and of his desire to please and puzzle them. Even older people were sometimes at a loss to follow his moods and strange fancies. He was invariably cheerful, hopeful, and optimistic even under circumstances of discouragement and doubt. I remember on one occasion one of his colleagues, mystified by his imperturbability in a trying emergency said, "Osler drop your mask, let us know what you actually think of the situation," but no one ever did gain that knowledge.

Osler's habits of work, while he resided at The Johns Hopkins Hospital, were exemplary and somewhat unusual for a man of literary taste. Such men are usually inclined to turn night into day, but he rose promptly at 7 a. m., took his bath and breakfast and was ready for work at 8 o'clock. He seemed to have a faculty for setting his mental machinery in motion immediately and accomplished effective work without delay. When his secretary came he generally began to dictate and by practice acquired great facility in terse and vigorous expression. This quality also was undoubtedly assisted by his familiarity with King James' version of the Bible, the Prayer Book, and Sir Thomas Browne. His method of the preparation of the Principles of Medicine was worthy of being followed by other writers. He gathered the literature of any subject which he had on hand by judicious foraging in his library and elsewhere. The volumes thus collected were piled four square generally, open at the page to be consulted upon the table, as long as room sufficed and later upon the floor until movement about the room was much restricted. I remember that when after seven months of strenuous labor he completed the first draft of his treatise on medicine I chanced to look into his room and found that it contained an immense heap of books piled as high as the table like an ancient sacrificial altar. The first draft was carefully revised with no great amount of change in sentences and forms of expression. Such changes as were made, however, did not destroy the crisp, breezy style or the epigrammatic form of expression which has always been characteristic of his literary work. The book contained many personal references which gave peculiar satisfaction to his friends by reason of the good-natured personal touches he frequently gave to the cherished beliefs and traditions which he did not share. I remember in speaking of the use of turpentine in typhoid fever, he said, "The routine administration of turpentine in typhoid fever is a useless practice for the perpetuation of which, in this generation, H. C. Wood is largely responsible." This somewhat pointed condemnation of a generally recognized method

of treatment at that time brought forth a vigorous rejoinder from Dr. Wood in a medical journal, but fortunately there was no loss of friendship on the part of either Osler or Wood.

Osler was also very scrupulous in fulfilling his duties in attendance upon the meetings of medical societies. When once informed by a student that he did not attend the meeting of a medical society because he was not sure that he could get anything out of it he replied, "Do you think I go for what I can get out of it or for what I can put into it?" Those who knew him felt a deep impression that in all activities in medical societies and in behalf of his students he labored solely to inspire them with a love of work for its own sake and for what he felt to be its final effect upon their growth and development.

This fact was brought out in his relations to the Training School for Nurses, established at the hospital in October, 1889, which were of an ideal character. He had a warm friendship for Miss Hampton, the organizer of the school and its first principal, and also for Miss Nutting, her successor. He gave much assistance in the way of advice and in teaching and was warmly interested in its success. He gave two graduating addresses also, one entitled, "Nurse and Patient," and the other, "Doctor and Nurse." He was appreciative of the work of nurses and touched lightly and gracefully upon the mutual relations of the nurse to her co-worker, the doctor, and to the object of her care, the patient. There was, however, a suspicion of an attitude of reserve towards trained nurses as a class as may be inferred by the quotations which preceded these addresses when published. One, for example, had this significant motto, from the Psalms of David, "I said I will take heed to my ways that I offend not in my tongue. I will keep my mouth as it were with a bridle." The other quotation was from Sir Thomas Browne, "Think not silence the wisdom of fools, but if rightly timed the honor of wise men who have not the infirmity, but the virtue, of taciturnity and speak not out of the abundance, but the well-weighed thoughts of their

hearts. Such silence may be eloquence and speak thy worth above the power of words."

Osler in fact seemed always appreciative and helpful while at the same time he had an air of detachment as one who was endeavoring to see whither the movement for the education of nurses would ultimately lead. In the end I am sure that he learned to understand and appreciate the work of the training school and felt the great importance of it to physicians and to the advance of the science of medicine.

OSLER AS I KNEW HIM IN PHILADELPHIA AND IN THE HOPKINS

BY HOWARD A. KELLY

I find myself wondering, in these days of pleasant retrospection, now that our much loved friend Sir William Osler is so splendidly rounding out his seventh decade, whether, of all his friends here, I may not claim the credit of having known him first.

I was living in Philadelphia up in the big mill district of Kensington, culling a surgical out of a large general practice, and at the same time keeping in close touch with things at the University of Pennsylvania, for eight years my college, when it became manifest that some fresh and stirring blood had entered the college life.

The university, with so many eminent men camping on her very doorstep in Philadelphia, and with that tendency to nepotism, a form of paternal pride seen in all successful institutions, had, as we younger men thought, driven John Guitéras of brilliant promise in general medicine, away from her doors to protect Pepper from rivalry, and now, not without great hesitation as we understood, she had actually broken her shackles, thrown traditions to the winds and pulled William Osler down from McGill in Montreal.

Fresh invigorating currents of life and new activities in our stereotyped medical teachings began at once to manifest themselves, and every sturdy expectant youngster in short order lined himself up as a satellite to the new star. Osler breezes were felt everywhere in the old conservative medical center, and yet it was not without some difficulties that he securely established himself. Weir Mitchell, who had reason in his later days to cultivate kindlier feelings towards the university than in his young manhood, was from the first Osler's devoted and intimate friend, and one by one the faculty was won to

appreciate him, perhaps including even Pepper too, though I am not so sure. My own life touched Osler's in the Kensington mill district in northeast Philadelphia. Aside from anatomy and chemistry, I got most of my real medical education while a resident in the Episcopal Hospital and next in the homes of the Kensington folk. Wood's physiological therapeutics and Stillé's didactic lectures on medicine seemed deadly to me, and worst of all was Tyson's pathology elucidated by Formad's quizzes. So it remained to get the education at the bedside, and here Osler came to my aid. It was more than a Sabbath day's journey in those days to go to Kensington from the heart of the city; it was an hour in the street car, and a long drive over bad, very bad, Philadelphia streets, but Osler came and Agnew came with their lamps in their hands to illuminate a few of the problems in the vast domain in which all medical graduates are presumed to be experts.

I think the first patient that Osler saw was suffering from *anorexia nervosa*, a condition which I had never seen before, and of which I was ignorant. He stayed to dine in Norris Square, and was particularly interested in my collection of old medical books.

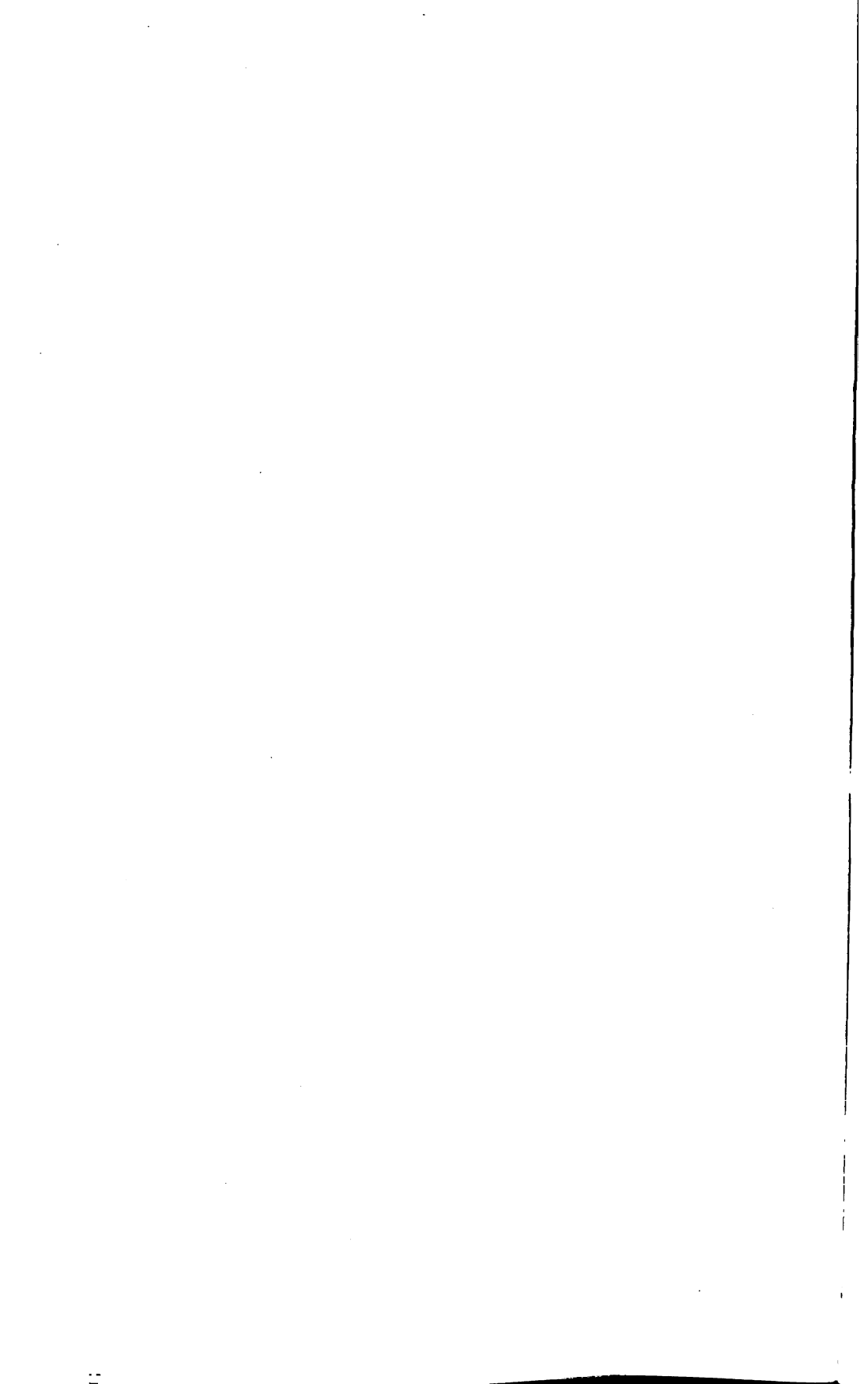
Then he was whisked away to Baltimore, and then after a year's time, I followed at his behest, glad to have a more concentrated field of work.

Here I can add nothing, for his record is known and read of all men, and what a blessing he, and Welch, and Halsted, and Hurd proved to be in this community. I leave others to appreciate Osler's skill as a medical man, and his love of the classics. I always think of him first of all as one who brought order out of the chaos in the medical profession of this city, a great task effected by his kindly personality, his insight into human nature, and the genuine affection he ever felt for all men who were even half way good.

It was a settled policy of Osler's life never to speak ill of any one but always to find the good, and in that way he converted the hostile camp of Baltimore into a kindly family of cooperating doctors.

Medicine here had fangs in the old days. Osler and Welch more than any others drew them; and so made possible medical progress.

I want to lay claim to the gift of prophetic insight (a rôle I doubt not in which many of my colleagues have anticipated me); I had said from the first that Osler was bound for London, and in the old days I longed to be ready to go with him when he went. The outcome has exceeded, I think, all our anticipations, and who but he would have maintained unabated the same interest in all his old friends, and who else could have turned the ocean into a highway, and his new position, detached as it is from any vast clinical facilities, into a veritable medical Mecca for all our American medical world. That many lustra may still be added to the kindly years of Lady and Sir William Osler is the wish of many hearts.







RESIDENCE OF DR. OSLER, CORNER OF CHARLES AND FRANKLIN STREETS.

OSLER AS A BIBLIOPHILE

BY THOMAS R. BOGGS

Adequate treatment of this important side of Dr. Osler's activities would far transcend the present writer's abilities and the space allotted to this article. But it may be of some value to discuss briefly Dr. Osler's interest in old books as reflected in his informal talks with the students.

In looking back it seems to the writer that the interest in the early editions was a development of the fundamental value he placed in the study of the history and evolution of the science and art of medicine, and that it was in connection with his studies of the fathers of medicine in all times and countries that he began that collection of first and rare editions which has now reached such remarkable proportions.

When the plan of collecting the works of the founders of British Medicine was first originated is unknown to the writer, but it had already reached a large degree of perfection at the time when the class of 1901 began to make the Saturday evening visits to the old house at No. 1 West Franklin Street.

Most of us will ever retain the delightful recollection of those informal gatherings about the big table in the dining-room, when after the discussion of the week's work in the wards was finished, "the chief" would bring out some of the books from the special shelves devoted to the masters of medicine and show us the first editions, tell us the story of their discovery and acquisition, point out the notable passages, and give the salient facts in the author's life history. For many of us this was the beginning of our knowledge of the history of medicine and of our own feeble attempts to follow in his steps as collectors.

How reverently we handled and admired the rare little volumes, of Linacre's grammar, or the spurious first edition of the Religio, or Digby's Animadversions, with their choice

bindings by Rivière or Zaehnsdorff. How thrilled by the story of the discovery of such a treasure on a York bookstall, bound in with an Almanack and bought for half a crown. With what delight we turned the pages of the tall copy of the *Pseudoxia Epidemica* and dipped into the grave Sir Thomas's discussion of the verity of the pictures of God, or the popular idea "that elephants have no knees." A beautiful Aldine from Mead's own library brought out the story of that great collector and his testamentary instruction that his library be sold so that others might have some of the pleasures of acquisition which he had so much enjoyed. We were given a glimpse into the special lore of the bibliophile, and learned something of the work of the pioneer printers and of the great presses of a later date. We learned a little of the fonts of type and the water-marks of papers, as well as the characteristics of the bindings peculiar to certain periods. The nature of book auctions was disclosed to us and we became familiar with the magic names of Sotheby and Quaritch, until some of us found the perusal of a good catalogue as exciting as a detective story. Still more important, we heard about the more famous collections of medical works, and began to project personal visits to the Bodleian, the Royal College of Physicians and the *Bibliothèque Nationale*.

But best of all and doubtless the ultimate object of all was the gradual acquisition of an epitome of the history of medicine which has kept us interested ever since those days.

Moreover, it was not merely the cultural value of a knowledge of the beginnings of the profession, but the constant lesson of the individual worker's triumph over handicaps of isolation, poverty, ridicule or personal peril, to add some contribution to the sum of knowledge, and the reiteration of the theme that the painstaking and observant physician, even though removed from the centers of learning and wide opportunity, has in the past contributed fundamentally to the advancement of knowledge, and may hope to do so in the future.

Again, Dr. Osler stimulated in us an interest in the medical writers of the early days of our own country and showed how much might be found by the investigation of the early journals and books, and this has led to the substantial contributions by his associates and pupils to the history of medicine in the colonies, the United States and Canada.

In conclusion, another side of Dr. Osler's bibliophilic activity must be noted, that is, his generous interest in the medical libraries of the country. He was not satisfied to acquire rare and interesting volumes for himself, but was constantly giving such books to the various professional libraries with which he had been associated; thus, McGill, Boston, The College of Physicians in Philadelphia and our own Maryland Faculty and Johns Hopkins have repeatedly received valuable acquisitions from him or from others whom he had induced to give rare volumes or even whole collections.

We are happy to know how vastly "the chief's" collection has grown since he removed to the University of Oxford, so that it is now one of the very best in existence. The catalogue, bibliographic, biographic and literary, of this great collection of the epoch-making works of science occupies most of his leisure, and will form another great contribution to the literature of medicine, second only to the immortal Practice.



OSLER'S LITERARY STYLE

BY EDWARD N. BRUSH

There are in connection with the task which has been assigned to me many very pleasant aspects. To make a critical analysis, to present a clear picture of Dr. Osler's literary style demands, however, more time and space than are at my disposal and above all more ability as a literary critic than I am endowed with.

In reading Dr. Osler's contributions to the literature of medicine, as well as his occasional addresses and essays, I am tempted to linger here and there, to point out the clarity of expression, the simplicity and beauty of diction and quote passage after passage in illustration of my thesis. Such a course would simplify the task before me because these quotations would show the author's style better than any powers of description or any ability of analysis I possess.

In his purely scientific work, as for example, in *The Principles and Practice of Medicine*, the author's method and his grasp of his subject are admirable. He follows the advice of the friend of Cervantes when the author of *Don Quixote* was in a quandary over the preparation of his preface, "Nothing but pure nature is your business; her you must consult, and the closer you can imitate, your picture is the better."

In my student days some one placed in my hands a copy of *Watson's Practice*.* While it was not recommended as a text-book to follow as an exponent of the then recognized principles of medical thought and practice, I found it one of the easiest works to read and one from which I obtained much of lasting value. Commenting upon this fact to my preceptor I was told that I had fallen upon a book which possessed, something not common in medical treatises, a good style.

* *Lectures on the Principles and Practice of Physic*. By Thomas Watson, M. D., etc., London, 1843.

The same is true of Osler's writings upon the strictly scientific aspect of medicine. Unity, order, clarity of description and ease of diction abound throughout his text-book and his various monographs. A master of his subject, having made the nature of disease his business, he imparts his information in such a manner that the reader at no time finds it difficult, because of ambiguous phraseology or doubtful expression, to grasp his meaning. His thoughts are "linked with the wants of his readers," and by the invisible chains which bind mind to mind, he and his reader become one.

The reader finds that he has a message to impart, a principle to establish, a rule of conduct to promulgate, and that he has done so in a logical, attractive manner which compels attention; and that to my mind is the test and measure of good writing.

Another view of Osler as an author is revealed in his occasional addresses and essays. In the two volumes before me—"Aequanimitas and Other Addresses" and "An Alabama Student and Other Biographical Addresses"—Osler's style in all its directness, strength and grace is shown in full measure.

In these volumes, as in other addresses not therein contained, notably his farewell to his professional associates and friends in Maryland under the title "Unity, Peace and Concord," Osler exemplifies Buffon's dictum: "The style is the man himself."

Sir Thomas Watson in his memorial of Latham, whose "Lectures on Clinical Medicine" are examples of the best English style, says: "His letters are treasures of good sense, of lively and epigrammatic comments on men and things and of shrewd and weighty reflections, wise advice and affectionate greetings"; and this can be with great truth applied to the addresses and essays of Dr. Osler. Lively, epigrammatic, shrewd, weighty and affectionate are all terms which well suit my purpose, which reveal the man through his writing. "Talent alone cannot make a writer," says Emerson, "there must be a man behind the book, a personality which by birth and quality is pledged to the doctrines there set forth."

With Byron one "hates an author that's *all author*." In Osler's case the author is all man, and the man reflects himself in his work. It is an easy task for those who have had the pleasure and advantage of intimate association with him to invoke his presence when reading his addresses, as for example, "Internal Medicine as a Vocation," "Medicine in the Nineteenth Century," "The Hospital as a College" and "The Master Word in Medicine."

What, if any, are the secrets of Osler's style; upon what does it depend? The answer, I think, is simply a love for and thorough mastery of good literature and a message to convey full of high ideals. One William Harrison, writing in 1577, speaks of "an excellent vein of writing not beforetime regarded" which has become manifest in England. This he intimates is the result not only of a knowledge on the part of writers of their own tongue, but of an acquaintance with the Latin and Greek and often with French and Spanish.

This excellent vein of writing soon became the glory of the Elizabethan age. The development of higher ideals in English national life was rapidly followed, as well as fostered, by the great authors of the age of England's literary glory. Style, literary excellence, came to be recognized as desirable, and reached its highest manifestation. Back of it all, however, were the ideals which fostered and gave material for the expression of literary style. There was an atmosphere of a great elevation of ideals, public and private, and at the same time tangible objects of national ambition and glory. England was "contending in the cause of the world as well as her own" and there was an outburst of genius which found its counterpart in a smaller degree many years later when England was contending again the world-ambition of Napoleon.

Will a similar development follow the world's war out of which we are just emerging?

When a man who has ideals and honesty of purpose and has filled his mind with the productions of the master spirits of the ages feels the call to write or speak, a beauty of literary style almost inevitably results.

What were the Pierian springs from which Osler drank, from which he attained, as has been said of him, "a breadth of learning and a knowledge of general literature that astound one?"

I would place first the English Bible. How often either by direct quotation or paraphrase does one find in his addresses and essays sentences and phrases from this well-spring of good English.

Of a liberal knowledge of the classics abundant evidence is found and a ready ability to take text, and illustration as well, from mythology.

With the masters of the English tongue from the early dawn of English literature till the present he has clearly dwelt on terms of greatest intimacy.

That half-hour devoted every day to communion with the minds of the past finds lessons reflected in writing, but never with any indication of servile copying. Osler's style is his own.

The last page of *Aequanimitas* has a list of books which Osler has called a *Bed-side Library for Medical Students*. This is: 1. Old and New Testament; 2. Shakespeare; 3. Montaigne; 4. Plutarch's Lives; 5. Marcus Aurelius; 6. Epic-tetus; 7. *Religio Medici*; 8. *Don Quixote*; 9. Emerson; 10. Oliver Wendell Holmes—*Breakfast-Table Series*.

John Brown, of Edinburgh (*Horae Subsecivae*, p. 400), gives a list which he commends to the medical student. These are "Shakespeare, Cervantes, Milton, Dryden, Pope, Cowper, Montaigne, Addison, Defoe Goldsmith, Fielding, Scott, Lamb, Macaulay, Jeffrey, Sydney Smith, Helps and Thackeray." Brown's list has nearly twice as many names as that given by Osler, but in solid worth the shorter list outweighs the longer.

Dr. Osler's list fulfills in brief compass the requirements of a liberal education and presents to the reader examples of the best in literature.

Reference has already been made to the fact that Dr. Osler is reflected in his writings, that in the words of Taine "behind the document there was a man."

In this instance that man had for years exercised, as I have tried to show elsewhere, a singular and powerful influence on medical education, hospital methods and in binding together for harmonious action the members of his profession.

He had encouraged the study of medical history and biography and found time in the midst of duties, which might well have availed as an excuse from further intellectual labors, to contribute in large measure to these subjects.

Always, with no false note, his cry has been for scientific righteousness. He has had ideals and, as an idealist, he has done what he has himself said other idealists have often done, "gradually moulded to their will conditions the most adverse and hopeless."

All of this and much more is reflected in the text of Osler's writing, presented often in epigrammatic form, reinforced by text and example from many sources, enlivened by a humor that is irresistible.

No medical contributor to general literature since Holmes has possessed the saving sense of humor to the degree shown in Osler's writings and no one could have used it with greater discrimination or more certain effect.

Often when apparently writing in a most humorous vein he has been the most serious in his meaning, and how often and with what delicate touch does he expose some of our human faults and foibles. I yield to the temptation to quote here an illustration of that to which I have just referred. "Curious, odd compounds are these fellow-creatures, at whose mercy you will be; full of fads and eccentricities, of whims and fancies; but the more closely we study their little foibles of one sort and another in the inner life which we see, the more surely is the conviction borne in upon us of the likeness of their weaknesses to our own. The similarity would be intolerable if a happy egotism did not often render us forgetful of it. Hence the need of an infinite patience and an ever-tender charity toward these fellow creatures; have they not to exercise the same toward us?"

To Osler's style may be applied part of his own estimate of some of the older writers, Burton, Browne and Fuller: "A rare quaintness, a love of odd conceits and the faculty of apt illustration."

In his writings he reminds us of what he has said of Browne, "The charm of high thoughts clad in beautiful language may win some readers to a love of good literature; but beyond this is a still greater advantage . . . the *Religio* is full of the counsels of perfection."

So, too, is there with Osler a "charm of high thoughts clad in beautiful language" and always the "counsels of perfection."

Osler's literary work is yet unfinished, the three score years and ten which he has attained have but ripened his judgment and enlarged his field of vision. He has seen many of his ideals become realities. The stress of the great world war has pressed heavily upon him and brought to him a great sorrow. The iron has entered into his soul. His future work will bear the stamp of all these.

He has made his own estimate of the "princes of the blood" in literature from our profession. He places Sir Thomas Browne, Holmes and John Brown, of Edinburgh, in a group high in the circle.

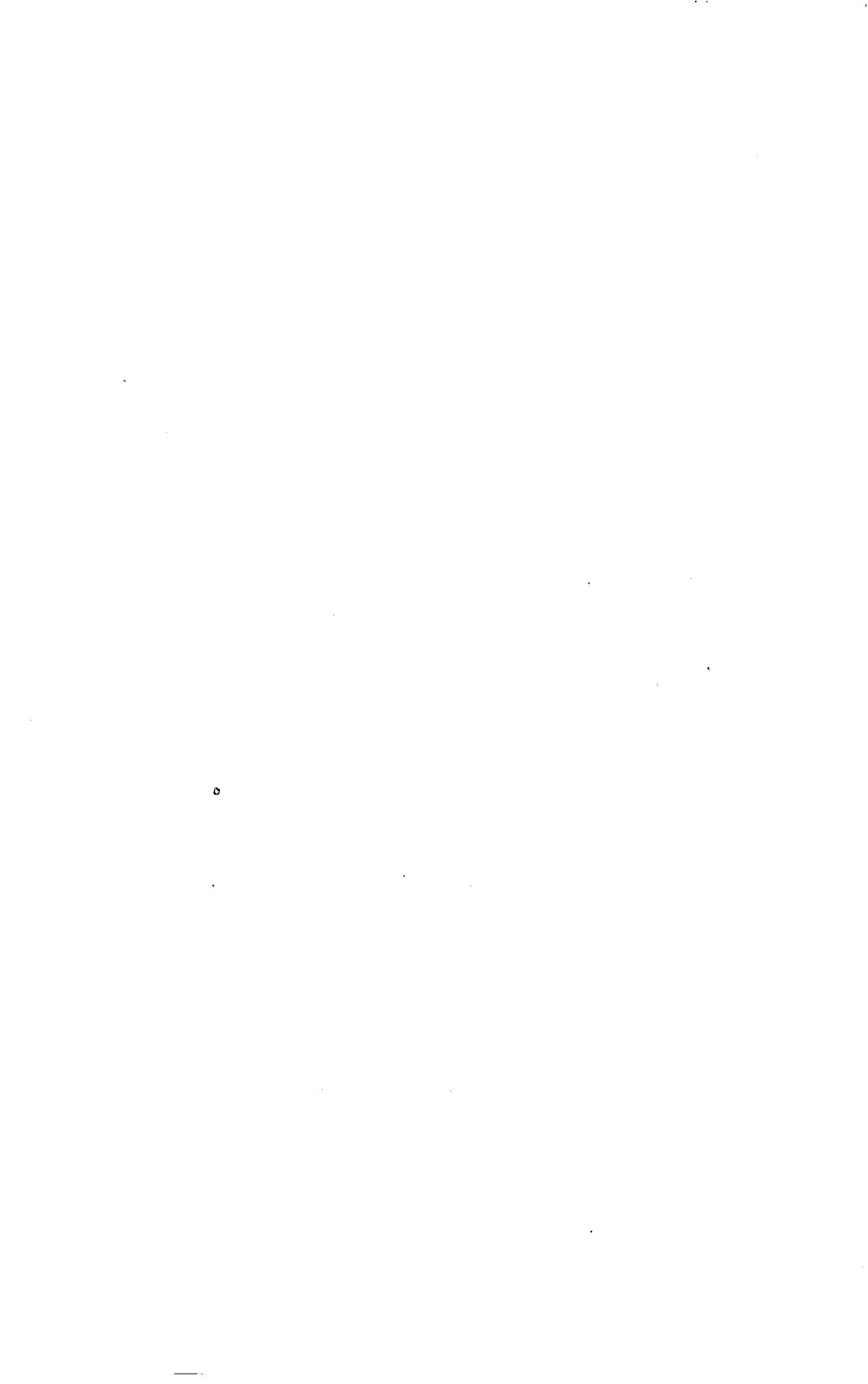
Osler possesses many things in common with these three in literary style and in literary excellence, and deserves a place in the same exalted fellowship.



(1) Respectability }
(2) Sobriety } in the faces of the
(3) Godliness } young Professors!

Im about 1900

J. M. Osler



BIBLIOGRAPHY
OF
SIR WILLIAM OSLER, BART., M. D., F. R. S.

COMPILED BY
MINNIE WRIGHT BLOGG
LIBRARIAN, THE JOHNS HOPKINS HOSPITAL

Sir William Osler's bibliography covers a period of 49 years (1870-1919). The 773 titles include both books and articles. Many of these are in the library of The Johns Hopkins Hospital and have added value as being personal gifts from the author.

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 Also: Canada M. & S. J., Montreal, 1877-78, vi, 385-395.
In his: Published Mem. & Communicat., Montreal, 1882, 8°.
 [Collect. repr., 1872-82, i, no. 19.]
- Phthisical cavities in left lung; gangrene of pulmonary tissue about one of them. Canada M. & S. J., Montreal, 1877-78, vi, 114.
 Also: Montreal Gen. Hosp. Rep. (1876-77), 1878, i, 37.
- Pleura. Small fibroid thickenings on visceral layer. Canada M. & S. J., Montreal, 1877-78, vi, 115-116.
 Also: Montreal Gen. Hosp. Rep. (1876-77), 1878, i, 40-41.
- Fracture of 1st and 2d ribs near vertebræ, from direct violence; deep abscess of the neck; obliteration of subclavian artery; empyema. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 11-12.
- Necrosis of tibia. Ulcerative endocarditis, pyæmic pneumonia. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 12-13.
- Necrosis of femur, pyæmic pneumonia; abscesses in superficial muscles; pustular eruption on skin. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 13-14.
- Primary cancer of bodies of 2d and 3d vertebræ and heads of corresponding ribs on right side. Secondary masses in ribs, liver and brain. Chronic phthisis. Lobar pneumonia. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 14-16.
- A case of hypertrophy and dilatation of the heart; no valvular or arterial disease; no chronic kidney affection; hydrothorax; pulmonary apoplexy; general venous stasis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 16-20.

- Aneurism of commencement of thoracic aorta, unsuspected during life; death from general tuberculosis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 20-21.
- Sacculated aneurism of ascending portion of arch of aorta; rupture into the right pleural sac. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 21.
- Sacculated aneurism of aorta, at termination of the arch, unsuspected during life. Death from pneumonia. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 22.
- Aneurism of hepatic artery. Right branch almost obliterated. Multiple abscesses in the liver. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 22-30.
- Aneurismal dilatation of branches of pulmonary artery on the walls of phthisical cavities. Death from hæmoptysis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 30.
- Aneurism at second bifurcation of the right middle cerebral artery; rupture; extravasation of blood into the Sylvian fissure, and laceration of substance of the temporosphenoidal lobe, death in 36 hours. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 30-32.
- Ossification of greater portion of mucous membrane of trachea. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 32.
- Pneumonia of the upper lobe of the right lung; extensive meningeal inflammation. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 33-34.
- Almost entire hepatization of left lung; with small pneumonic area in right. Extensive diphtheritic colitis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 34.
- Diabetes, phthisical cavity in right lung surrounded by hepatized tissue. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 34-35.
- Chronic phthisis, almost entire destruction of both lungs. Healthy portion involved in a pneumonia. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 35.
- Simple pneumonia of left lung, right-sided pleurisy. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 35.
- Pneumonia of right lung, uniform involvement of pleura covering it. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 35-37.
- Fibroid contraction and induration of entire right lung; cavity at apex; displacement of heart; hypertrophy with dilatation of right chambers. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 38-39.
- Chronic phthisis; perforation of lungs; pneumothorax; dermoid cyst of right ovary. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 39-40.
- Epithelioma of right side of tongue, extending from base to near the apex. Removal of organ with galvanic écraseur. Suppuration beneath cervical fascia. Pyæmia. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 41-42.

- Chronic phthisis. Military tubercles in lungs and pharynx. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 42-43.
- Cancer of the cardiac orifice, involving the œsophagus. Secondary masses in other parts of the organ. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 43-44.
- Medullary cancer, involving the pyloric zone of the stomach; perforation, peritonitis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 44.
- Passage of two feet of the ileum through a loop attached to the sigmoid flexure. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 45.
- Round ulcer of duodenum. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 45-46.
- Perforation of typhoid ulcer during convalescence, owing to an indiscretion in diet. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 46.
- Perforation of a deep ulcer at end of second week. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 46-47.
- Typhoid fever. Perforation. Peritonitis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 47.
- Four round ulcers in the ileum. Peyer's patches not generally involved. Slight hypostatic pneumonia. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 48.
- Slight swelling of Peyer's glands, only one small spot of ulceration. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 48.
- Round ulcer of cæcum, perforation, general peritonitis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 49.
- Abscesses in the mesentery. Suppuration of portal vein. Empyema. Perforation of appendix, general peritonitis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 51.
- Acute tubercular inflammation of the peritoneum. Small caseous mass in left lung. Right-sided pleurisy. General hyperplasia of the bone marrow. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 52-56.
- Cirrhosis of liver, with enlargement; jaundice; no ascites; delirium tremens (?): erysipelas of the head. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 56-60.
Also: Canada M. & S. J., Montreal, 1877-78, vi, 249-253.
- Syphilitic ulceration of left frontal bone; large node on left tibia; gummata in liver. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 60-61.
Also: Canada M. & S. J., Montreal, 1877-78, vi, 253.
- Primary cancer of the liver; ascites; jaundice; secondary mass in tail of pancreas; small secondary nodules in kidneys. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 61-64.
Also: Canada M. & S. J., Montreal, 1877-78, vi, 254-256.

- Cancer of neck of the gall-bladder and lymphatic glands in the portal fissure; compression of the hepatic ducts; secondary masses in liver; enormous distension of gall-bladder, and hæmorrhage into it; gall-stones. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 64-65.
- Extensive abscesses in the mesentery, following typhoid fever. Suppuration of the portal vein and its branches in the liver. Empyema. Perforation of the appendix vermiformis; peritonitis; miliary tubercles in lungs. Amyloid degeneration of spleen, liver, and mucous membrane of small intestine. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 65-71.
- Tuberculous disease of right kidney, pelvis, ureter and bladder. Tubercles in left kidney and lungs. Perforation of tuberculous ulcer in bladder. Peritonitis. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 72-73.
- Old scrofulous disease of right kidney, which is converted into cysts. Recent affection of the left. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 73-74.
- Old disease of the right kidney, which is converted into five or six cysts, filled with a putty-like material. Extensive tuberculous disease of the organ. Miliary tubercles in lungs. Albuminoid spleen. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 74-75.
- Suppuration about right kidney. Pyæmic abscesses in elbows, ankles and anterior mediastinum. Peritonitis. Pleurisy. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 75-76.
- Stone in the bladder. Prostatic tumors around the urethral orifice. Ulceration on mucous membrane. Pyelitis; ulceration of apices of renal pyramids. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 76-77.
- Epithelioma of cervix; obstruction of the canal; dilatation of the uterine cavity. Pyometra. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 77-78.
- Dermoid or piliferous cyst of right ovary. Chronic phthisis. Pneumothorax. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 78-79.
- Small cavity and caseous masses in lung. General tuberculosis. Meninges of brain unaffected; central softening. Spinal meninges extensively involved. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 79-81.
- Meningeal affection slight. Ventricles distended, walls soft. Very few miliary tubercles in the organs. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 81-82.
- Meningeal affection very extensive on the cortex, slight at the base. Ventricles large, walls not soft. Large caseous mass in left lung. Miliary tubercles in lungs and on peritoneum. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 82-83.
- Slight meningeal inflammation. One caseous mass and a few tubercles in lungs. Old morbus coxæ. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 84.

Profound anæmia without discoverable lesion. Fatty degeneration of organs. Hyperplasia of bone-marrow. Montreal Gen. Hosp. Path. Rep. (1876-77), 1878, i, 84-97.

Ueber die Entwicklung von Blutkörperchen im Knochenmark bei pernicioser Anämie. [Berlin, 1878, L. Schumacher.] Centralbl. f. d. med. Wissensch., Berl., 1878, xvi, 465-467.

In his: Published Mem. & Communicat., Montreal, 1882, 8°.

[Collect. repr., 1872-82, i, no. 21.]

Osler, W., and Ross, G.: Aneurism of hepatic artery; multiple abscesses of the liver. Canada M. & S. J., Montreal, 1877-78, vi, 1-12.

In his: Collect. repr., 1872-82, i, no. 13.

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Case of obliteration of vena cava inferior, with great stenosis of orifices of hepatic veins. J. Anat. & Physiol., Lond., 1878-79, xiii, 291-304.

In his: Collect. repr., 1872-82, i, no. 24.

Two cases of rare kidney tumors. Canada M. Rec., Montreal, 1879, vii, 164.

Minor's phthisis (Rep. by R. Dawson). Canada M. & S. J., Montreal, 1878-79, vii, 452-454.

Also: Montreal Gen. Hosp. Rep., 1880, i, 297-299.

Acute Bright's disease in a child; remarkable persistence of blood-corpules and casts in the urine after disappearance of albumin. (Rep. by A. Henderson.) Canada M. & S. J., Montreal, 1878-79, vii, 455.

Aphasia, with right-sided hemiplegia, coming on fifteen days after delivery. [Rep. by D. Mignault.] Canada M. & S. J., Montreal, 1878-79, vii, 492-493.

Acute rheumatism treated with salicylate of soda. Delirium apparently caused by the remedy. [Rep. by B. E. Mackenzie.] Canada M. & S. J., Montreal, 1878-79, vii, 493-494.

Cohnheim's theory of tumors. Transl. and condensed from vol. I of his Vorlesungen über allgemeine Pathologie (Lectures upon general pathology). By Dr. Osler. Canada M. & S. J., Montreal, 1878-79, vii, 337-347; 398-408.

1880

Concussion of brain; temporary hemiplegia; general convulsions; rapid recovery. [Rep. by Imrie.] Canada M. & S. J., Montreal, 1879-80, viii, 8.

Aggravated stuttering, following fall on the head. Canada M. & S. J., Montreal, 1879-80, viii, 9.

Extreme irregularity of the heart. [Rep. by E. J. Rogers.] Canada M. & S. J., Montreal, 1879-80, viii, 9.

Chronic pleurisy; flattening of sides of chest. Canada M. & S. J., Montreal, 1879-80, viii, 109-111.

- Croup or diphtheria; which? Canada M. & S. J., Montreal, 1879-80, viii, 207-211.
In his: Collect. repr., 1872-82, i, no. 23.
- Three cases of brain disease. Canada M. & S. J., Montreal, 1879-80, viii, 295; 346.
- Anomalous case of pyæmia; suppuration about tissues in left inferior carotid triangle; pyæmic abscess beneath tensor vaginæ femoris; pyæmic infarcts in the lungs; septic pleurisy. Canada M. & S. J., Montreal, 1879-80, viii, 544-548.
- Catalogue of a series of specimens illustrative of the morbid anatomy of the brain and spinal cord. Exhibited at Ottawa Meeting of Canada Medical Association, Sept. 1 and 2, 1880.
- Case of congenital and progressive hypertrophy of the right upper extremity. J. Anat. & Physiol., Lond., 1879-80, xiv, 10-12.
In his: Collect. repr., 1872-82, i, no. 25.
- Two cases of striated myo-sarcoma of the kidney. J. Anat. & Physiol., Lond., 1879-80, xiv, 229-233.
In his: Collect. repr., 1872-82, i, no. 26.
- Cases of cardiac abnormalities. Montreal Gen. Hosp. Rep., 1880, i, 177-192.
In his: Collect. repr., 1872-82, i, no. 27.
- On the condition of fusion of two segments of the semilunar valves. Montreal Gen. Hosp. Rep., 1880, i, 233-242.
In his: Collect. repr., 1872-82, i, no. 28.
- Wound of the central part of the 1st and 2d frontal convolutions on left side. Montreal Gen. Hosp. Rep., 1880, i, 257-258.
- Bullet wound of right frontal lobe; entire absence of cerebral symptoms. Montreal Gen. Hosp. Rep., 1880, i, 258-260.
- Cases of aneurism of the aorta. Montreal Gen. Hosp. Rep., 1880, i, 260-265.
- Aneurism of innominate-rupture of saccular dilatation of aorta into pericardium. Montreal Gen. Hosp. Rep., 1880, i, 265-266.
- Aneurism of splenic artery; perforation into transverse colon. Montreal Gen. Hosp. Rep., 1880, i, 266-268.
- Small aneurism of renal artery. Montreal Gen. Hosp. Rep., 1880, i, 268.
- Four cases of intracranial aneurism. Montreal Gen. Hosp. Rep., 1880, i, 268-275.
- Aneurisms of branches of pulmonary artery on wall of cavities; hæmoptysis in chronic phthisis. Montreal Gen. Hosp. Rep., 1880, i, 275-276.
- Two cases of hypertrophy of the heart. Montreal Gen. Hosp. Rep., 1880, i, 276-282.
- Perforation of pulmonary artery by ulcer of left bronchus; sudden death from hæmoptysis; chronic bronchitis, emphysema, phthisis. Montreal Gen. Hosp. Rep., 1880, i, 282-283.
- Instance of four pulmonary valves. Montreal Gen. Hosp. Rep., 1880, i, 284.

- Bayonet wound of left subclavian artery at its origin. Montreal Gen. Hosp. Rep., 1880, i, 284.
- Fatty degeneration of heart in diphtheria; sudden death on the thirteenth day. Montreal Gen. Hosp. Rep., 1880, i, 285.
- Two cases of thrombosis of pulmonary artery. Montreal Gen. Hosp. Rep., 1880, i, 285-287.
- Thrombosis of branches of right pulmonary artery. Montreal Gen. Hosp. Rep., 1880, i, 287-290.
- Œdema of right lung; hydrothorax of left pleura; contracted kidneys. Montreal Gen. Hosp. Rep., 1880, i, 290-291.
- Œdema of left lung; morphia poisoning. Montreal Gen. Hosp. Rep., 1880, i, 291-292.
- Pneumonia; ulcerative endocarditis; meningitis. Montreal Gen. Hosp. Rep., 1880, i, 292-295.
- Pneumonic phthisis. Montreal Gen. Hosp. Rep., 1880, i, 295-297.
- Note on the occurrence of membrane in the trachea and bronchi in diphtheria. Montreal Gen. Hosp. Rep., 1880, i, 299-300.
- Foreign body in œsophagus; ulceration; perforation; retro-pharyngeal and œsophageal abscess. Montreal Gen. Hosp. Rep., 1880, i, 300-301.
- Three cases of cancer of the stomach. Montreal Gen. Hosp. Rep., 1880, i, 301-302.
- Three cases of ulcer of the stomach. Montreal Gen. Hosp. Rep., 1880, i, 304-306.
- Three cases of simple ulcer of duodenum. Montreal Gen. Hosp. Rep., 1880, i, 306-311.
- Typhoid fever; rapidly fatal, with nervous symptoms. Montreal Gen. Hosp. Rep., 1880, i, 311-312.
- Perforation of appendix vermiformis; circumscribed abscess; perforation of ileum; hæmorrhage from bowels. Montreal Gen. Hosp. Rep., 1880, i, 313-314.
- Liver; hydatid cyst. Montreal Gen. Hosp. Rep., 1880, i, 314-316.
- Primary cancer of liver. Montreal Gen. Hosp. Rep., 1880, i, 316-317.
- Cirrhosis of liver; collateral circulation by means of an enlarged umbilical vein; death from pneumonia. Montreal Gen. Hosp. Rep., 1880, i, 317-318.
- Pylephlebitis. Montreal Gen. Hosp. Rep., 1880, i, 318-321.
- Extensive scald of thorax; pneumonia; numerous spots of fatty degeneration in kidneys. Montreal Gen. Hosp. Rep., 1880, i, 321-322.
- Small contracted kidneys; left organ affected to an unusual degree; right only involved in the lower part; hypertrophy of heart. Montreal Gen. Hosp. Rep., 1880, i, 322-324.
- Large cirrhotic kidneys (congested); hypertrophy of heart; apoplexy. Montreal Gen. Hosp. Rep., 1880, i, 324-325.
- Sarcoma of left kidney. Montreal Gen. Hosp. Rep., 1880, i, 325-328.

- Dermoid of ovary; ulcerative colitis. Montreal Gen. Hosp. Rep., 1880, i, 328-329.
- Cancer of neck of uterus; constriction of right ureter; pyonephrosis. Montreal Gen. Hosp. Rep., 1880, i, 329-331.
- Ruptured follicle in right ovary; peritonitis. Montreal Gen. Hosp. Rep., 1880, i, 331-333.
- Extra-uterine (abdominal) pregnancy. Montreal Gen. Hosp. Rep., 1880, i, 333-335.
- Cryptorchidismus. Montreal Gen. Hosp. Rep., 1880, i, 335-336.
- Medullary sarcoma of axillary glands; secondary masses in heart, lungs, stomach, intestines, liver, spleen, kidneys, suprarenal capsules, and pancreas. Montreal Gen. Hosp. Rep., 1880, i, 336-339.
- Sarcoma of retro-peritoneal glands; Lobstein cancer. Montreal Gen. Hosp. Rep., 1880, i, 339-340.
- Lympho-sarcoma of deep cervical glands, involving the thyroid and simulating goitre. Montreal Gen. Hosp. Rep., 1880, i, 340-342.
- On Giacomini's method of preserving the brain. Med. Rec., N. Y., 1880, xvii, 315-316.
- On the systolic brain murmur of children. Boston M. & S. J., 1880, ciii, 29-30.
In his: Collect. repr., 1872-82, i, no. 30.
- On heredity in progressive muscular atrophy as illustrated in the Farr family of Vermont. Arch. Med., N. Y., 1880, iv, 316-320.
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- On a remarkable heart-murmur, heard at a distance from chest-wall. Med. Times & Gaz., Lond., 1880, ii, 432.
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- Lympho-sarcoma of deep cervical glands, involving the thyroid and simulating goitre. Montreal Gen. Hosp. Rep., 1880, i, 340-342.
- Montreal General Hospital. Pathological reports. 1. (1876-77); 2. (1877-79), Montreal, 1878-80. (2. report *repr. from*: Montreal Gen. Hosp. Rep., Clin. & Path., 1880, i.)
1 and 2 *also in his*: Published Mem. & Communicat., Montreal, 1882.
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- Catalogue of a series of specimens illustrative of the morbid anatomy of the brain and spinal cord. Exhibited at Ottawa meeting of the Canada Medical Association, Sept. 1st and 2d, 1880.
- Osler, W., *ed.* Montreal General Hospital. Reports, clinical and pathological, by the medical staff. v. i, Montreal, 1880, Dawson Brothers, 390 p., 8°.

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- On some points in the etiology and pathology of ulcerative endocarditis. Lond., 1881, J. W. Kolckmann, 8 p., 8°.
Tr. Internat. M. Cóngr., 7. sess., Lond., 1881, i, 341-346.
In his: Collect. repr., 1882-92, ii, no. 44.

- Renal cirrhosis; with special reference to its latency and to sudden, fatal manifestations occurring in its course. Toronto, 1881, Dudley & Barnes, 13 p., 8°.
 Canada Lancet, Toronto, 1880, xiii, 353-359.
In his: Collect. repr., 1872-82, i, no. 42.
- On some of the effects of the chronic impaction of gallstones in the bile-passages, and on the "fièvre intermittente hépatique" of Charcot. London, 1881, Pardon & Sons, 15 p., 12°.
 Med. Times & Gaz., Lond., 1881, ii, 111-114.
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- Cases of insular sclerosis. Canada M. & S. J., Montreal, 1880-81, ix, 1-11.
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- Case of medullary neuroma of the brain. J. Anat. & Physiol., Lond., 1880-81, xv, 217-225.
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- Retro-peritoneal cancer. Canada M. & S. J., Montreal, 1880-81, ix, 161.
- Brief description of the new physiological laboratory, McGill College. Canada M. & S. J., Montreal, 1880-81, ix, 198-201.
- Cases of Hodgkin's disease. Canada M. & S. J., Montreal, 1880-81, ix, 385-397.
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- Clinical lecture on a case of fibroid phthisis. Delivered at the Montreal General Hospital in the summer session course, May 10, 1881. Canada M. & S. J., Montreal, 1880-81, ix, 641-650.
In his: Collect. repr., 1872-82, i, no. 40.
- Notes on the second demonstration in the morbid anatomy course in McGill College. Canad. J. M. Sc., Toronto, 1881, vi, 350-353.
- On delayed resolution in pneumonia. Canada Lancet, Toronto, 1880-81, xiii, 99-103.
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- Ulcerative endocarditis. Bull. N. York. Path. Soc., 1881, 2. s., i, 29-33.
- Notes on intestinal diverticula. Ann. Anat. & Surg., Brooklyn, N. Y., 1881, iv, 202-207.
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- Published memoirs and communications. (To Jan. 1, 1882), Montreal, 1882, 8°.
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- Students' notes. Normal histology, for laboratory and class use. Montreal, 1882, Dawson Bros.
- Clinical remarks on cases of inherited syphilis. Canada M. & S. J., Montreal, 1881-82, x, 588-592.
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- On the brains of criminals. With a description of the brains of two murderers. Canada M. & S. J., Montreal, 1881-82, x, 385-398.
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- Case of obliteration of the portal vein (pyelephlebitis adhesiva). J. Anat. & Physiol., Lond., 1881-82, xvi, 208-216.
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- Summer session clinics. No. 1. Cases of inherited syphilis. No. 2. Acute Bright's disease. Nos. 3-4. Pneumonia. No. 5. Leucocythæmia. Montreal, 1882, 44 p., 8°.
In his: Collect. repr., 1882-92, ii, no. 48.
- A clinical lecture on empyema and its antiseptic treatment. Med. News, Phila., 1882, xli, 113-115.
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- Uræmic delirium and coma at a very early stage of interstitial nephritis. Arch. Med., N. Y., 1882, vii, 213-215.
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- On certain parasites in the blood of the frog. Canad. Naturalist, Montreal, 1882, x, 406-410.
In his: Collect. repr., 1882-92, ii, no. 52.
- On Canadian fresh-water polyzoa. Canad. Naturalist, Montreal, 1882, x, 399-405.
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- On echinococcus disease in America. Am. J. M. Sc., Phila., 1882, n. s., lxxxiv, 475-480.
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- Atheromatous plate and ulcers on arch of aorta. Med. News, Phila., 1882, xl, 249.
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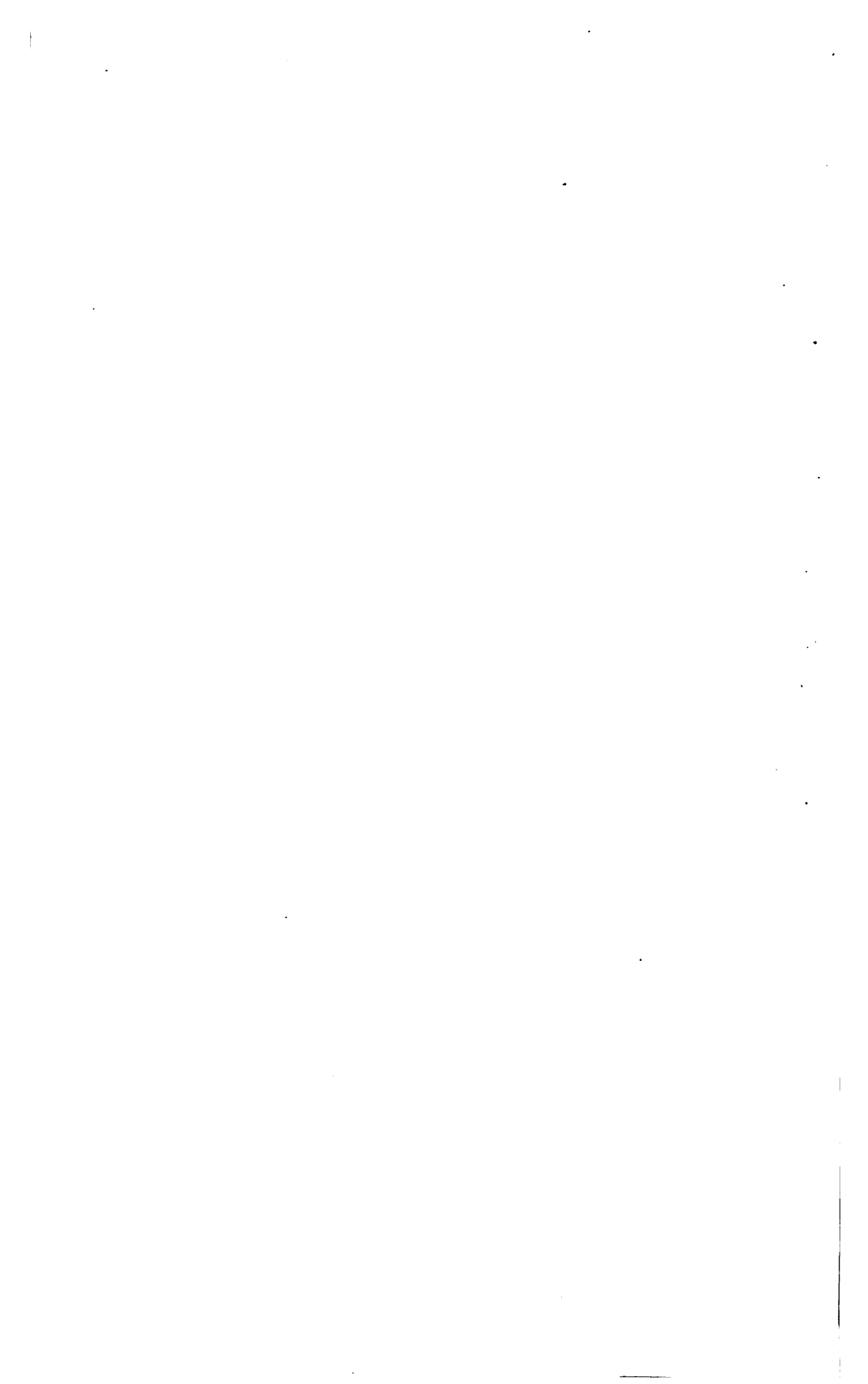
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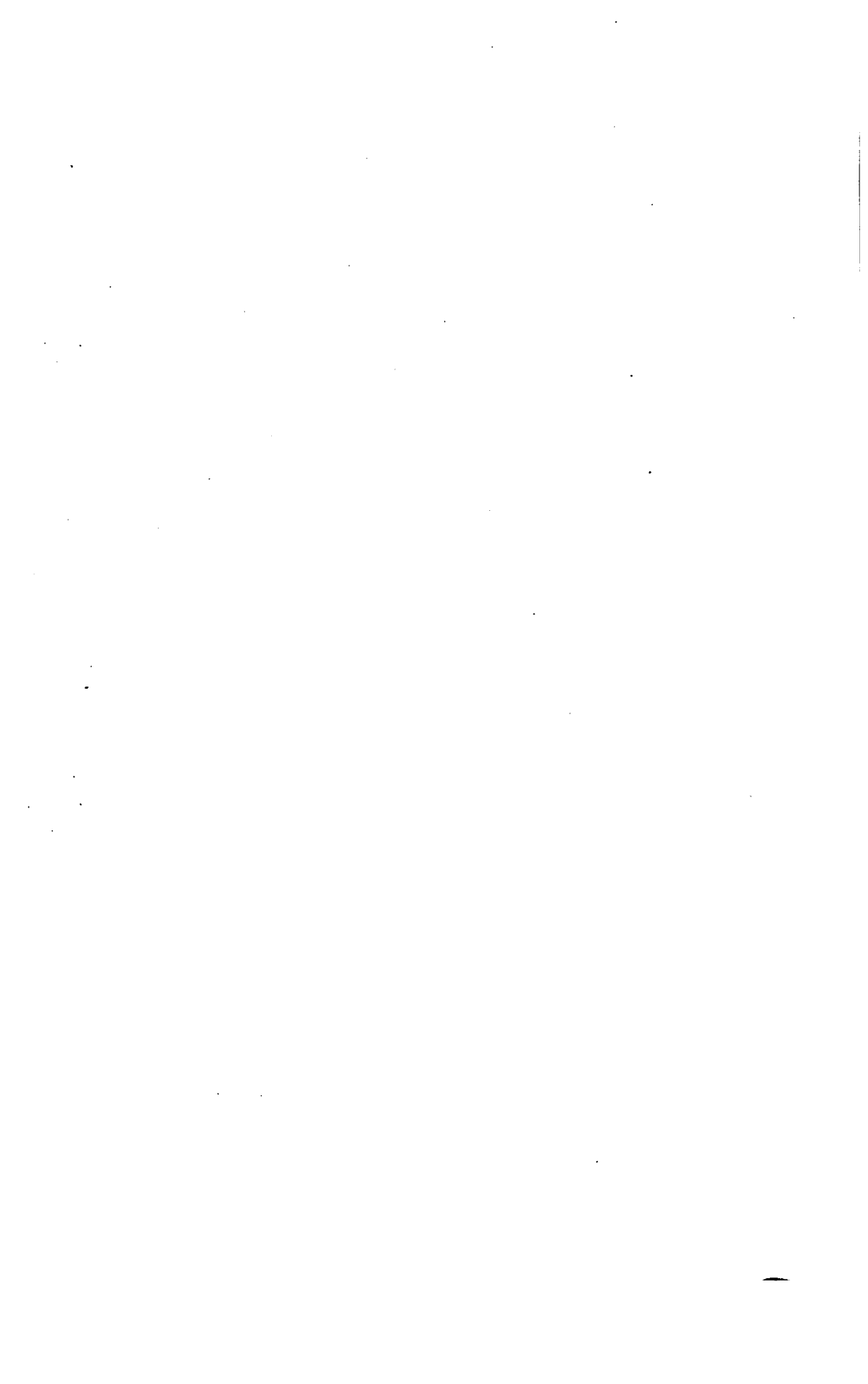
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